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Analysis of Medicare Beneficiary Knowledge Data Using the Medicare Current Beneficiary Survey (MCBS)

Phase 3.2

Final Report

Prepared for

Sherry Terrell, Ph.D.
Project Officer
Centers for Medicare & Medicaid Services (CMS)
7500 Security Blvd.
M/S 3C-20-17
Baltimore, MD 21244-1850

Prepared by

Nancy D. Berkman, Ph.D.
May Kuo, Ph.D.
Scientific Reviewer, Arthur J. Bonito, Ph.D.
RTI International
Health, Social, and Economics Research
Research Triangle Park, NC 27709

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ANALYSIS OF MEDICARE BENEFICIARY KNOWLEDGE DATA USING THE
MEDICARE CURRENT BENEFICIARY SURVEY (MCBS)

by Nancy D. Berkman and May Kuo

Scientific Reviewer: Arthur J. Bonito, Ph.D.

Federal Project Officer: Sherry Terrell, Ph.D.

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EXECUTIVE SUMMARY

This report uses the 1998 through 2000 rounds of the Medicare Current Beneficiary Survey (MCBS) to measure progress toward achieving the Centers for Medicare and Medicaid Services (CMS) education campaign goals following the national distribution of the Handbooks *Medicare & You 2000* in 1999 and *Medicare & You 2001* in 2000. In addition to descriptive analyses, we use longitudinal regression modeling to measure if the latest Handbook, *Medicare & You 2001*, was significantly related to selected campaign objective outcomes. We also use the MCBS to report trends in selected beneficiary outcomes over the 6-year period (1995 to 2000) during which the education campaign was implemented. A companion technical note from this phase of the research, *Development and Psychometric Evaluation of Beneficiary Knowledge Indices from the Medicare Current Beneficiary Survey* (Bann and Berkman, 2002), was recently prepared. It contains evaluations of two knowledge indices that were used in this report to measure progress toward the education campaign objective of beneficiaries' understanding of important Medicare concepts.

The broad policy questions of the Medicare beneficiary education campaign that were examined in earlier phases of this research and continued in this phase include the following:

- Do beneficiaries receive (have *access* to) information and is this access increasing over time?
- Are beneficiaries *aware* of Medicare's features and options and is this awareness increasing over time?
- Do beneficiaries *understand* the information they receive, can they use it for making informed choices about their Medicare participation if they so desire, and is this level of understanding increasing over time?
- Are beneficiaries *using* the information to make choices and is use of the information increasing over time?

From the 2000 MCBS, we found that almost three-quarters of noninstitutionalized Medicare beneficiaries remembered receiving a copy of the *Medicare & You* Handbook. These persons were using the Handbook as a reference document; although virtually all kept their copy, most had not read it thoroughly. Approximately half of beneficiaries were aware of the Medicare toll-free telephone number. Among those who had Internet access, only a small percentage had visited the official web site for Medicare information.

Comparison of MCBS data from the 1995 to 2000 surveys showed a significant increase in the percentage of beneficiaries seeking information about five Medicare topics between the 1998 and 2000 MCBS (the year before the first national distribution of the *Medicare & You* Handbook and the year after the second national distribution). For each topic, those who read the *Medicare & You 2001* Handbook were more likely to have tried to find out information than those who did not remember receiving a copy, controlling for their past information-seeking behavior. Between 1998 and 2000, beneficiaries increasingly found the Handbook easy to understand. Beneficiary actual and perceived knowledge increased over the period as well. Increases in both knowledge indices were significantly related to beneficiaries' having read the *Medicare & You*

2001 Handbook, as well as having received it but not read it compared with not receiving it. More than 90 percent of beneficiaries were satisfied with the availability of information throughout the 6-year period, and generally beneficiaries' questions were answered by the information they received.

Overall, based on the data available through multiple years of the MCBS, we found that the education campaign has been achieving its goals. There were few sustained differences between beneficiaries based on their characteristics in achieving campaign objectives; exceptions were those with the least amount of education and those who received help or did not make their own healthcare decisions. It is unclear whether this latter group indicates a concern for the education campaign since we do not have data on the decision makers for this group: to what extent these beneficiaries make decisions on their own, what types of decisions they tend to make, or the level of sophistication of those making decisions for them.

SECTION 1 INTRODUCTION

1.1 Overview of the Medicare Program's Beneficiary Education Campaign

Medicare beneficiary communication programs were materially enhanced by the Balanced Budget Act of 1997 (BBA 97), which authorized several new health insurance options for Medicare beneficiaries as part of the Medicare + Choice program. To inform beneficiaries about these changes and to provide them general and comparative information about their health insurance options, the Centers for Medicare & Medicaid Services (CMS) (formerly the Health Care Financing Administration, or HCFA) initiated a National Medicare Education Program (NMEP) campaign. The education campaign is a multifaceted communication program with the ultimate goal of educating Medicare beneficiaries so that they can make more informed decisions about alternatives available to them under the Medicare program. The specific objectives of the campaign are to ensure that beneficiaries have *access* to accurate and reliable information, are *aware* of the different health plan choices available to them, *understand* the consequences of choosing different plans, and are able to *use* the information provided to them when making decisions. CMS would also like beneficiaries to view the Medicare program and its private sector partners as trusted and credible sources of information about Medicare (Goldstein, 1999; Cronin, 2000).

Over the years, a number of studies have demonstrated that adults of all ages have an inadequate understanding of their health insurance coverage (Mechanic, 1989; Isaacs, 1996; Garnick, 1993). There is also research documenting the low level of Medicare beneficiary knowledge about the program (Gibbs, Sangl, and Burrus, 1996; Hibbard et al., 1998; Murray and Shatto, 1998; National Academy of Social Insurance, 1998; McCormack et al., 2002). Many beneficiaries have never heard of a Medicare health maintenance organization (HMO), and a majority are unable to tell the difference between the original Medicare program and a Medicare managed care plan (Hibbard et al., 1998). This information is particularly important, as knowing the differences between original Medicare, Medicare HMOs, the newer Medicare + Choice options, and other choices is necessary for informed insurance coverage decisions. The Medicare beneficiary education campaign is CMS' coordinated effort to address this problem, in both the short and long term, by creating useful information resources.

The *Medicare & You Handbook* is the primary print medium that CMS has developed to provide information to beneficiaries. The 1999 version of the Handbook was pilot tested in five states and the Kansas City metropolitan statistical area in fall 1998; in that year, the smaller *Medicare & You Bulletin* was mailed to beneficiaries in all other states. The *Medicare & You 2000 Handbook* was mailed nationally to all 39 million elderly and disabled beneficiaries in fall 1999, and the 2001 Handbook was mailed in fall 2000. In addition to these print materials, the education campaign includes telephone help lines, an Internet information database, training and support for information intermediaries, enhanced beneficiary counseling services, and state- and community-based outreach and education efforts.

1.2 Purpose

This report presents findings from the third phase of the CMS effort to monitor progress toward the Medicare program's beneficiary education campaign goals. The results include an analysis of trends over time in beneficiary education campaign-related outcomes of improving beneficiary access to and awareness of information, as well as increasing beneficiary understanding and use of that information. We present analyses of beneficiary responses to MCBS survey questions measuring the effect of education campaign materials, including the *Medicare & You Handbook*, on achieving the education campaign objectives. In addition, we present differences in the extent to which individual beneficiaries achieved education campaign goals before and after the national distribution of the *Medicare & You Handbook*. Last, we present a subanalysis of achievement of education campaign objectives by MCBS proxy respondents and beneficiaries who needed help making healthcare decisions compared with beneficiaries who made their own decisions.

Answering the broad, policy-oriented questions of the Medicare education campaign was the focus of earlier phases of this study and continues to be the focus in Phase 3. These questions are as follows:

- Do beneficiaries receive (have *access* to) information and is this access increasing over time?
- Are beneficiaries *aware* of Medicare's features and options and is this awareness increasing over time?
- Do beneficiaries *understand* the information they receive, can they use it for making informed choices about their Medicare participation if they so desire, and is this level of understanding increasing over time?
- Are beneficiaries *using* the information to make choices and is use of the information increasing over time?

This effort complements earlier analyses of the Handbook's effect performed in Phases 1 and 2 of this project. In the Phase 1 report, RTI identified MCBS survey questions that could be used to establish a pre-educational campaign baseline and assessed the availability of measures of beneficiary knowledge of Medicare. During Phase 2 of this research, we examined the marginal effect of reading the *Medicare & You Handbook* in five test states.

1.2.1 Findings From Phases 1 and 2

The purpose of Phase 1 was to explore potential baseline measures of beneficiaries' Medicare knowledge using the 1995 to 1998 MCBS (Bonito et al., 2000) (see *Exhibit 1* in Section 2 for a timeline of MCBS survey rounds and distribution of the *Medicare & You Handbook*). Potential measures of beneficiary knowledge were identified, as were classes of variables that were used as controls when assessing the impact of the *Medicare & You Handbook* on outcomes of interest. They include

- a self-reported understanding of the Medicare program from MCBS Rounds 14, 17, and 20;
- a four-item quiz regarding knowledge of Medicare benefits from Round 18;
- a measure of perceived knowledge of aspects of Medicare from Rounds 18 and 24;
- a measure of global perceived knowledge of Medicare from Round 23; and
- an eight-item quiz on health plan features from Round 23.

From the available knowledge measures, RTI recommended in Phase 1 the four-item quiz and questions on perceived knowledge as baseline knowledge measures in tracking the progress of the education campaign. All of the knowledge measures have limitations, but these two were identified as having sufficient internal consistency, reliability, and construct validity to warrant use as baseline measures. In general, persons who were socioeconomically disadvantaged, had health limitations, had Medicaid coverage, and did not use any services scored lower on these knowledge indices in the 1996 MCBS.

The purpose of the Phase 2 study was to monitor progress toward achieving each of the four education campaign objectives using questions drawn from Rounds 23 and 24 of the 1998 MCBS Access to Care files (Anderson et al., 2000). We used descriptive and multivariate analyses to determine if Medicare materials were promoting education campaign objectives. The analysis examined the marginal effect of reading the *1999 Medicare & You Handbook* in the five states (Arizona, Florida, Ohio, Oregon, and Washington) in which it was fielded during 1998. In each of the campaign goal areas that we examined using regression analyses, most questions showed that reading the Handbook made a positive contribution compared with not reading the Handbook. In the five states, reading the Handbook had modest percentage point gains for the education campaign goal of impact/use, because beneficiaries used it to find or review information on health plan choices. Beneficiaries who read the Handbook also demonstrated heightened awareness of managed care arrangements and buy-in programs. Rounds 23 and 24 of the MCBS were found to be generally of benefit for evaluating the education campaign, but the authors concluded that more survey questions were needed to better measure the four beneficiary education campaign goals for comprehensive monitoring.

Phase 2 findings suggest the importance of ongoing development, testing, and refinements of knowledge questions as an important way to measure beneficiary knowledge and limit the impact of social desirability in responses. A larger set of questions with similar psychometric properties and substantive content will need to be administered over time to assess the longer range effects of the education campaign and to avoid administering the same set of questions to the same beneficiaries year after year.

1.2.2 Phase 3 Goals

This phase of the project continues the evaluation of the impact of various components of the Medicare education campaign, using data from the MCBS, and builds on the findings and analysis methodology developed through RTI's earlier work for CMS in Phases 1 and 2. The 2-year Phase 3 analysis presents results based on multiple years of MCBS survey data: 1995

through 1999 were presented in the first-year Phase 3.1 report. In this final Phase 3.2 report, we add the analysis of 2000 MCBS data. Including these rounds of MCBS data allows for analysis of beneficiary outcomes before and after the first and second national distributions of the *Medicare & You Handbook* in 1999 and 2000, respectively, after the Internet web site became available in 1998, and after the 1-800-Medicar(e) number became available nationwide in 1999.

This report is the second of two reports presenting Phase 3.2 findings. In a companion report, *Development and Psychometric Evaluation of Beneficiary Knowledge Indices from the Medicare Current Beneficiary Survey* (Bann and Berkman, 2002), we developed and evaluated two potential knowledge indices using data from the 1998 through 2000 MCBS survey rounds. One was a perceived knowledge index that included five questions and asked beneficiaries to subjectively rate how much they knew about a particular topic related to Medicare. The other measure was a nine-item quiz that required beneficiaries to respond to sets of true/false questions. Trends over time in these indices as well as longitudinal changes in individual beneficiary knowledge of quiz items before and after receipt of the *Medicare & You Handbook* are presented in this report.

SECTION 2

THE MCBS AS A SOURCE OF DATA FOR EVALUATING THE MEDICARE BENEFICIARY EDUCATION CAMPAIGN

This analysis is intended to provide the best answers to our research questions through data available from the MCBS. The MCBS is valuable for this purpose because it has been conducted repeatedly, spanning the time period before the introduction of the Medicare education campaign in 1998, through the national distributions of the *Medicare & You Handbook*, and beyond. The data for this analysis come from the Access to Care files and selected Supplemental files from the 1995 to 2000 MCBS surveys (see *Exhibit 1* for a timeline of the rounds of the MCBS we used in our analysis and the distribution dates of the *Medicare & You Handbook*).

Each annual installment of the MCBS consists of three rounds of interviews with respondents. The first round occurs between September and December of the calendar year, and the subsequent two rounds are conducted in the following year between January and April and between May and August.

The MCBS is a rotating panel design in which a large national probability sample of approximately 12,000 Medicare beneficiaries are interviewed every 4 months for up to 4 years. Very old and disabled beneficiaries under age 65 are oversampled for some rounds of the survey, as are beneficiaries enrolled in Medicare HMOs in some years. Each year, approximately one-fourth of the sample is rotated out of the survey and replaced with new members, so that each annual MCBS data set represents a cross-section of the Medicare population enrolled in the program continuously since January 1 of that year, as well as members of a longitudinal beneficiary panel.

Because this study focuses on the impact of the Medicare education campaign activities on beneficiary knowledge of Medicare, the degree to which the MCBS provides data on education campaign interventions is a central issue of the research design and interpretation. The interventions of interest include the *Medicare & You Handbook* (distributed nationally in fall 1999 and again in fall 2000), the Medicare beneficiary web site (www.medicare.gov), and the toll-free Medicare hotline [1-800-Medicar(e)]; the latter two were initially implemented in 1998.

The MCBS was conducted for a number of years before these educational activities were first implemented and can be expected to be conducted periodically in the future, offering the opportunity to make comparisons over time. The MCBS makes it possible to track national trends in (1) beneficiary knowledge and sources of information about Medicare through the periods before and after the education campaign activities were implemented, and (2) beneficiaries' use and preferences for a variety of sources of information to stay informed about changes in the Medicare program.

Exhibit 1
Structure of the Phase 3 analysis in relation to the NMEP and MCBS timelines

	Winter 1995–1996	Winter 1996–1997	Spring 1997	Winter 1997–1998	Fall 1998	Winter 1998–1999	Spring 1999	Fall 1999	Winter 1999–2000	Spring 2000	Fall 2000	Winter 2000–2001	Spring 2001
MCBS year	1995 MCBS	1996 MCBS		1997 MCBS		1998 MCBS ¹			1999 MCBS ²			2000 MCBS ³	
MCBS round number	14 PR	17 PR	18 OL	20 PR		23 BK	24 BN		26 BK	27 BN		29 BK	30 BN
NMEP event					1999 Handbook distributed in five states. Bulletin distributed in all other states.			2000 Handbook distributed in all 50 states.			2001 Handbook distributed in all 50 states.		

¹ Included questions referring to the *1999 Medicare & You Handbook/Bulletin*.

² Included questions referring to the *Medicare & You 2000 Handbook*.

³ Included questions referring to the *Medicare & You 2001 Handbook*.

NOTE: NMEP = National Medicare Education Program; MCBS = Medicare Current Beneficiary Survey.

The extent to which the MCBS supplies data to evaluate whether the education campaign is achieving its four stated objectives varies over time. Although many questions remained unchanged in the 1995 to 2000 MCBS, other questions were reworded or not included in one or more years. For example, questions regarding a beneficiary's *need* for information appeared in the 1995 to 1997 MCBS, and similar questions concerning trying to *find* information were continued in the MCBS from 1998 to 2000. Questions concerning the *Medicare & You* Handbook and other education campaign materials were asked of beneficiaries for the first time in the 1999 MCBS, following their national availability. Therefore, comparisons across all or some of the years for which we have data are limited by question availability.

Also, some questions were not asked of the entire sample in every year. For instance, the section of the survey measuring beneficiary knowledge was asked of all beneficiaries between 1995 and 1998, but in 1999 these questions were only asked of respondents new to the MCBS sample. These questions were again asked of everyone in the sample during the 2000 MCBS. Therefore, while trend analysis of beneficiary knowledge items is possible across all years, a longitudinal analysis measuring changes in individual beneficiary knowledge questions before and after the first national distribution of the *Medicare & You* Handbook, using data from the 1999 MCBS, was not possible because no prior year data were available for the cohort. Instead, this report presents comparisons of MCBS respondents before the first national distribution of the Handbook (MCBS 1998) and after its second distribution (MCBS 2000).

SECTION 3 ANALYTIC DESIGN

3.1 Overview

This analysis uses three analytic approaches to evaluate progress toward achieving the four Medicare education campaign objectives of increasing access, awareness, understanding, and impact/use of Medicare information. The first approach is cross-sectional and presents differences in beneficiary characteristics associated with achieving each of the four goals. The second approach examines trends over time in beneficiary knowledge and behavior, beginning in the period before the national implementation of the education campaign through the 2000 MCBS, the most recent year for which data were available. In the third approach, longitudinal analyses present beneficiary knowledge or behavior at a point in time after the second national distribution of the *Medicare & You* Handbook compared with a point in time prior to its first national distribution. Results based on each of these analytic approaches are grouped according to the Medicare education campaign goal question they assist in answering.

All analyses were conducted using SAS and SUDAAN software to account for the variance calculation complexities of the multistage MCBS sample design. Survey weights were applied specific to the survey rounds being used. Because only new MCBS survey respondents were asked the beneficiary knowledge questions in the 1999 MCBS, the sample size was smaller than in other years of data where the entire MCBS sample was included. Still, rather than the usual $p < .05$ to report statistical significance, differences in all years are reported as statistically significant when they reached the $p < .01$ level or lower because the large sample sizes generally available for most analyses would result in many comparisons being defined as “significant.”

3.2 Cross-Sectional Differences in the Population

The cross-sectional analysis focuses on research questions specifically related to the education campaign materials. Multivariate results from both the 1999 and 2000 MCBS are presented and examine differences in beneficiary characteristics relative to the questions of interest. The multivariate model used to analyze differences in beneficiary characteristics related to particular outcomes has the following form:

Outcome = f (Beneficiary demographic characteristics, health status, level of independence in making healthcare decisions, insurance coverage beyond traditional Medicare, current year expenditures, exposure to cable TV and the Internet, and, in the 2000 MCBS only, years participating in the MCBS survey)

All outcomes were modeled using dichotomous, multinomial, or ordered logistic regression equations. Dichotomous logistic models compare responses of “yes” relative to “no.” In only one instance, the analysis of responses to a question concerning receipt of the Handbook (BK28), was there a sufficient number of “don’t know” responses to include them as a separate category in a multinomial logistic regression model. We prefer this specification because we do not consider “don’t know” to be synonymous with either “yes” or “no.” Otherwise, the numbers of beneficiary “don’t know” responses were negligible (typically less than 2 percent of respondents) and were dropped from the analysis. The independent variables used in our analysis generally

measure the same constructs as those identified in the Phase 2 analysis and include beneficiary characteristics for which achievement of Medicare beneficiary education campaign goals are hypothesized to vary. *Exhibit 2* presents beneficiary characteristics, the manner in which they were operationalized in the analysis, and their weighted distribution in the noninstitutionalized Medicare beneficiary population as estimated from the 1999 and 2000 MCBS.

Demographic characteristics include age, gender, race, educational attainment, and marital status. We consider differences related to the physical health and healthcare decision-making ability of beneficiaries through variables measuring self-reported health status, whether beneficiaries answered the survey through a proxy, and, if not, whether they made their own healthcare decisions or received at least some help (only those answering the survey themselves were asked the healthcare decision-making questions). We also include whether beneficiaries had additional coverage beyond traditional Medicare: whether they were enrolled in a managed care plan; obtained supplemental coverage through an employer, private purchase, Medicaid, or public coverage other than Medicaid; or had none of these forms of additional coverage.

Beneficiaries were also categorized according to levels of medical service use as measured by their Medicare claims charges in the current year, recognizing that respondents participating in Medicare + Choice plans would generally not have claims with charges. Beneficiaries were also classified according to the types of media available to them that might provide access to information about Medicare, including whether they had cable TV in their home or access to the Internet. In the models using MCBS 2000 data, we also include a measure for the number of years beneficiaries had participated in the survey to control for any knowledge gained through repeated exposure to the MCBS questions. Because all MCBS 1999 respondents were new to the survey, this variable is not relevant for this group and not included in these models.

The distributions of the 1999 and 2000 weighted MCBS samples used in the multivariate analyses are presented in *Exhibit 2*. Generally, the distribution of characteristic categories was similar in both years. Among the noninstitutionalized Medicare population, most beneficiaries were 65 years of age or older, and only 13 percent were younger and eligible on the basis of disability. Over half of the beneficiaries were women (56 percent), and four-fifths were white (80 percent in 1999 and 86 percent in 2000). Two-thirds had at least a high school diploma, but 16 percent had less than a ninth grade education. Slightly more than half (54 percent) were married, and about 30 percent were widowed.

Beneficiary self-reported health status varied greatly across the population. Although 41 percent reported being in excellent or very good health, nearly 30 percent said they were in fair or poor health. Almost two-thirds of beneficiaries reported making their own healthcare decisions, whereas more than one-fourth received at least some help making decisions. An additional 8 percent used proxies to respond to the MCBS and thus were not asked whether they made their own healthcare decisions.

Only 29 percent of beneficiaries in 1999 and 23 percent in 2000 reported being enrolled in some form of managed care during the year, regardless of whether it was obtained through an employer, privately, or through public coverage. On the other hand, all but 12 percent to 14 percent of Medicare beneficiaries reported having one or more forms of supplemental

Exhibit 2
Beneficiary characteristics used in multivariate models as independent variables

Characteristic	Levels of the characteristic	Weighted percentage 1999	Weighted percentage 2000
Age	▪ Less than 65 years	12.5	12.9
	▪ 65 to 75 years	51.1	49.8
	▪ Over 75 years (reference)	36.5	37.3
Gender	▪ Female (reference)	56.1	55.9
	▪ Male	43.9	44.1
Race	▪ White	80.2	85.5
	▪ Nonwhite (reference)	19.8	14.5
Educational attainment	▪ Less than ninth grade	16.4	16.0
	▪ Some high school	17.6	17.0
	▪ High school graduate (reference)	29.3	28.8
	▪ Greater than high school	36.7	38.2
Marital status	▪ Married (reference)	53.9	53.6
	▪ Widowed	29.0	29.9
	▪ Separated/divorced	10.7	10.2
	▪ Never married	6.3	6.2
Self-reported health status	▪ Excellent/very good health	41.0	41.1
	▪ Good health	30.5	31.6
	▪ Fair/poor health (reference)	28.5	27.3
Healthcare decision making and proxy survey respondent	▪ Made own healthcare decisions (reference)	63.5	64.9
	▪ Received help making healthcare decisions or someone else made healthcare decisions	27.7	26.6
	▪ Proxy survey respondent	8.8	8.4
Managed care enrollee	▪ Enrolled in Medicare managed care plan or other HMO at any time during the year	29.0	22.9
	▪ Not enrolled in any managed care at any time during the year (reference)	71.0	77.1
Employer-sponsored coverage	▪ Had employer-sponsored coverage at any time during the year	30.8	35.0
	▪ Did not have employer-sponsored coverage at any time during the year (reference)	69.2	65.0

(continued)

Exhibit 2
(continued)

Characteristic	Levels of the characteristic	Weighted percentage 1999	Weighted percentage 2000
Medigap or privately purchased coverage	▪ Had Medigap or other privately purchased coverage at any time during the year	46.6	41.6
	▪ Did not have Medigap or other privately purchased coverage at any time during the year (reference)	53.5	58.4
Medicaid coverage	▪ Had Medicaid coverage at any time during the year	12.0	12.1
	▪ Did not have Medicaid coverage at any time during the year (reference)	88.0	87.9
Other public coverage	▪ Had other public coverage at any time during the year	3.3	0.6
	▪ Did not have other public coverage at any time during the year (reference)	96.7	99.4
No supplemental coverage	▪ Had no supplemental coverage beyond Medicare at any time during the year	11.6	14.0
	▪ Had supplemental coverage at any time during the year (reference)	88.4	86.0
Cable TV	▪ Had cable TV	75.2	77.3
	▪ Did not have cable TV (reference)	24.9	22.7
Internet access	▪ Had Internet access	29.2	33.5
	▪ Did not have Internet access (reference)	70.8	66.5
Level of Medicare charges in the current year	▪ \$0	31.3	25.9
	▪ \$1 to \$600	18.3	18.0
	▪ Greater than \$600 to \$2,000	17.8	19.7
	▪ Greater than \$2,000 to \$7,500	16.3	17.7
	▪ Greater than \$7,500 (reference)	16.3	18.7
Mean years in survey	▪ Years beneficiary has been a survey respondent (range varies from 1 to 4)	NA	2.4

NOTE: Data from analysis of the MCBS noninstitutionalized sample (1999 n = 4,347 and 2000 n = 14,369). NA = not applicable.

coverage during the year, either concurrently or consecutively. Thirty-one percent in 1999 and 35 percent in 2000 had employer-sponsored benefits, 47 percent in 1999 and 42 percent in 2000 had Medigap or other privately purchased coverage, 12 percent had Medicaid coverage, and 3 percent in 1999 and 1 percent in 2000 had public coverage other than through the Medicaid program.

Three-quarters of beneficiaries had access to information through cable TV, and close to one-third (29 percent in 1999 and 34 percent in 2000) reported having access to the Internet. Although almost one-third (31 percent) of noninstitutionalized beneficiaries had no charges reported in Medicare claims in 1999, this declined to 26 percent in the following year.

3.3 Trends Over Time

Our trend analysis examines changes in selected outcomes in the Medicare population over time. This portion of the study is descriptive and includes questions that have been repeated for multiple years of the survey, including from before the implementation of the education campaign to up to 2 years after its national implementation (the final year available for our analysis).

Due to changes in MCBS survey item wording over time, the analysis of questions pertaining to access to information measures trends in the percentage of beneficiaries who *needed* to find out about five specific aspects of the program from the 1995 to 1997 surveys, followed by the percentage of beneficiaries who *tried* to find out about the same specific aspects of the program in the 1998 through 2000 surveys. We also present trends in whether beneficiaries *needed* to or *tried* to find out about any of these five specific aspects of Medicare and identify the most common sources used for obtaining information on any of these items. We also measure the percentage of beneficiaries who had access to the *Medicare & You* Handbook between the 1998 and 2000 surveys.

Using 1998 through 2000 MCBS data, trends in achieving the awareness objectives are measured through questions related to the Medicare toll-free information number and the web site. For the understanding goal domain, we measure changes in the mean index scores on the knowledge and perceived knowledge indices. Due to changes in MCBS questions over time, trends in comparable indices can only be shown for 1998 through 2000 MCBS data. We also measure several questions related to trends in understanding the *Medicare & You* Handbook.

Trends in the impact of the information and whether beneficiaries were using the information they received are measured through the 1995 to 2000 surveys in relation to whether beneficiaries' questions were answered through the information they received on a variety of topics as well as how satisfied they were with the availability of information. Trends from 1998 to 2000 relating to use of the Handbook are also measured.

A concern when using data from a rotating panel design for trend analyses is that the samples from one year to the next are not completely independent because some respondents remain in the survey for multiple rounds. When conducting tests of the significance of changes over time, we accounted for the panel nature of the data following the recommendations of O'Connell, Chu, and Bailey (1997). They suggest using the balanced repeated replications

(BRR) method for calculating standard errors. T-tests and Wald chi-square tests were used to detect differences in outcomes of interest over time. Tests of differences were conducted, and those that reached less than the $p = .01$ level were considered significant. We adopted the $p < .01$ level rather than $p < .05$ to take into account the large MCBS sample sizes available for all survey years (except 1999) and the resulting tendency for very small differences to test as significant. This more stringent definition also provides some protection from differences inappropriately appearing statistically significant due to the multiple comparisons being made in the trend analyses. Survey weights were incorporated into the analyses so that the results would be representative of the Medicare population.

3.4 Longitudinal Changes

Longitudinal analysis is used to measure the effect of the *Medicare & You 2001 Handbook* on achieving education campaign goals. A result from a beneficiary participating in the 2000 MCBS survey (following the second national distribution of the *Medicare & You Handbook*) is compared with his/her response from the 1998 survey (prior to the national distribution of the Handbook), controlling for the Handbook and other individual characteristics. Data from the 1999 MCBS survey are not included in the analysis since this survey only included new survey respondents and therefore could not measure outcomes for these beneficiaries from before the first national distribution of the Handbook.

The multivariate model used to measure beneficiary outcomes in the 2000 MCBS has the following functional form:

Outcome in 2000 MCBS = f (Handbook, outcome in 1998 MCBS, demographic characteristics, health status, level of independence in making healthcare decisions, insurance coverage beyond traditional Medicare, current year expenditures, exposure to cable TV and the Internet)

The policy construct of interest is the effect of the Handbook on the outcome and is measured through a three-category variable: did not receive the Handbook, received the Handbook but did not read it, received and read the Handbook (either all or part of it). The variable is constructed in this manner to observe whether there is an independent effect related to receiving the Handbook that could be related to beneficiaries' not accurately recalling that they read the book. Control variables included in the model are the same as those included in the cross-sectional analysis (excluding years participating in the survey since it is not relevant in this model).

Differences in a beneficiary's access to information over time are measured by a series of models concerning whether information was sought on a variety of topics; differences in awareness are measured in relation to calling the Medicare toll-free information number. Knowledge quiz scores and a general knowledge question provide longitudinal measures of understanding. A measure of overall satisfaction is used to estimate program impact.

3.5 Subanalysis by Beneficiary Decision-Making Ability

For each of the four education campaign objectives, we present an analysis describing differences by beneficiaries' decision-making ability. Decision-making ability is defined by

three mutually exclusive categories: (1) proxy survey respondent and, from BK56, whether the beneficiary (2) made his/her own healthcare decisions or (3) received help or someone else made his/her healthcare decisions. The MCBS survey documentation states that an individual is asked to designate a proxy respondent after an effort is made to interview the sampled person directly but the individual is unable to answer the questions. The proxy is usually a family member or close acquaintance. We combined the responses “receives help making decisions” and “someone else makes decisions” due to the small number of respondents stating that someone else made their healthcare decisions. For selected outcomes, cross-tabulations are presented. A discussion of the relationship of this variable on multivariate outcomes refers back to models discussed in other sections of the report because this variable is included in all multivariate models.

SECTION 4 RESULTS

This section presents the results of the analysis organized by the education campaign objectives: access, awareness, understanding, and impact/use. These are followed by the subanalyses of results by beneficiary decision-making status. For each objective, we first present results relating specifically to education campaign materials. These are followed by trends over time relating to information more generally. Finally, for selected outcomes, we present analyses of the effect of the *Medicare & You 2001* Handbook on beneficiaries' achieving each of the Medicare beneficiary education campaign objectives.

Separately for each education campaign objective, we list the survey questions analyzed and discuss frequency distributions and corresponding multivariate results. Exhibits displaying results are included in the appendices.

4.1 Access

4.1.1 Access to Campaign Materials

We analyzed three MCBS items representing the education campaign objective of increasing access to educational materials. The research question and the related MCBS survey items are presented in *Exhibit 3*, and the corresponding descriptive and multivariate results are contained in *Appendix A*.

Exhibit 3
Access to campaign materials research questions and related MCBS survey questions

Research question	MCBS survey questions	MCBS survey years
Do beneficiaries receive (have access to) information made available through the Medicare education campaign and is this access increasing over time?	BK28. Did you receive a copy of this book, called the <i>Medicare & You</i> Handbook?	1998–2000
	BK29. Who sent you this book?	1998–2000
	BK40. Do you still have the book?	1998–2000

We found that the percentage of beneficiaries who said they received a copy of the most recent Handbook increased significantly over time (37 percent in 1998, 58 percent in 1999, and 71 percent in 2000) (*Exhibit A.1*). Both the percentage of beneficiaries who said they did not receive the Handbook and the percentage who did not know whether they received the Handbook declined over time. Of those who said they received the Handbook, the percentage who knew it came from HCFA (the Agency's name at the time of the survey) or the people who run Medicare significantly increased between 1998 and subsequent years (*Exhibit A.2*). By 1999, more than half (55 percent) knew that it came from the people who run Medicare. Although the percentage of beneficiaries who did not know who sent them the book declined slightly each year, one-quarter of beneficiaries were in this category in 2000. The percentage of beneficiaries who reported having a copy of the Handbook at the time of the survey also increased significantly over time to include virtually all beneficiaries by 2000 (92 percent) (*Exhibit A.3*). Overall, these

results suggest that beneficiaries are increasingly remembering the Handbook and that the distribution of the Handbook is improving over time. Of those beneficiaries who said they had received a copy, they valued it to the extent that virtually all kept it as a resource. A far smaller percentage of beneficiaries than those who kept the Handbook knew who had sent it to them.

Multinomial logistic regression analyses measured which beneficiary characteristics were significantly related to two of these outcomes: whether beneficiaries had received the Handbook and whether they still had a copy (*Exhibit A.4*). Results of separate regression models are compared between 1999 and 2000; note that the sample size in all of the 2000 regression analyses is much larger, and, thus, relationships between beneficiary characteristics and the outcome are more likely to be statistically significant.

A three-category dependent variable measuring whether beneficiaries had received the Handbook was constructed using the responses “yes,” “no,” and “don’t know,” with the “no” category used as the reference category for comparisons with each of the remaining two categories. We report both of these comparisons for this three-category dependent variable: whether a respondent said he or she had received a copy of the Handbook versus saying one had not been received, and not knowing whether he or she had received one versus saying it had not been received. Results show that in both years beneficiaries 65 to 75 years of age were significantly more likely than older beneficiaries to say they had received a copy of the Handbook. Those with the least amount of education (less than ninth grade) compared with those with a high school degree and those who received help making healthcare decisions compared with those who made their own decisions were less likely to say they received a copy. In 2000 only, being white, having access to the Internet, and having current year medical charges greater than \$600 were all associated with a beneficiary saying that he/she had received the Handbook. In 2000, characteristics also associated with beneficiaries’ being less likely to say they received the Handbook were being less than 65 years old and disabled compared with being in the older than 75 age group and having Medicaid coverage at some time during the year. We found few significant differences in characteristics comparing those who did not know if they had received the Handbook and those who said they had not received a copy. Being white was the only characteristic in both years significantly related to beneficiaries’ not knowing whether they had received a Handbook compared with saying they had not.

Next, we estimated a logistic regression model limited to beneficiaries who said they had received a copy of the Handbook, measuring differences in characteristics among those who still had a copy. We found virtually no significant differences by characteristics in either year, most likely reflecting the fact that almost all beneficiaries who said they received a copy said they still had it.

4.1.2 Access to Topics of Information

Our analysis of trends in the topics of information that beneficiaries needed or tried to access spans the period covered by the 1995 to 2000 MCBS surveys (*Exhibit 4*). During that time, although the same five topic areas remained available for analysis, the wording of the question changed from whether beneficiaries thought they *needed* to find out information about each topic (1995 to 1997) to whether they *tried* to find out information (1998 and 2000) about each of the topics. We also measured whether beneficiaries *needed* or *tried* to find out information about *any*

of the five topics. In *Exhibits A.5 to A.9*, trends in each topic area throughout the 1995 to 2000 period are presented in one chart but clearly distinguish between the two time periods. Due to the wording change, differences between years are only compared between 1995 through 1997, and 1998 through 2000. Also shown in the exhibits is the timing of the Handbook distributions relative to the survey rounds. The first national distribution of the *Medicare & You* Handbook occurred between the 1998 and 1999 MCBS survey rounds, and the second national distribution of the Handbook occurred between the 1999 and 2000 MCBS survey rounds. *Exhibit A.10* presents trends in whether beneficiaries needed or tried to find out information on *any* of the topic areas. We also show the top five sources beneficiaries reported using to obtain information on any of these topics (*Exhibit A.11*).

Exhibit 4

Access to topics of information research questions and related MCBS survey questions

Research questions	MCBS survey questions	MCBS survey years
Have the topics of information that beneficiaries try to access changed over time?	In the past year, have you <i>needed</i> to find out information on each of five topic areas: <ul style="list-style-type: none"> ▪ PR2a. New benefits or changes in the Medicare program? ▪ PR8. What medical services Medicare covers and does not cover? ▪ PR16a. The availability and benefits of HMOs? ▪ PR11. What your Medigap or supplemental insurance policy covers? ▪ PR14. How much you needed to pay for a particular medical service? 	1995–1997
	In the past year, have you <i>needed</i> to find out information on <i>any</i> of these five topic areas?	
	In the past year, have you <i>tried</i> to find out information on each of five topic areas: <ul style="list-style-type: none"> ▪ BK7. New benefits or changes in the Medicare program? ▪ BK11. What medical services Medicare covers and does not cover? ▪ BK15. The availability and benefits of Medicare managed care plans such as HMOs? ▪ BK19. What your Medigap or supplemental insurance policy covers? ▪ BK3. How much you needed to pay for a particular medical service? 	1998–2000
	In the past year, have you <i>tried</i> to find out information on <i>any</i> of these five topic areas?	
Have the sources of information used by beneficiaries changed over time?	As a group, what are the most common sources of information used to find out about these five topic areas?	1995–2000

A small percentage of beneficiaries said they *needed* to find out information about new benefits or changes in the Medicare program between 1995 and 1997 (*Exhibit A.5*). However, the decline from 5.5 percent in 1995 to 4.6 percent in 1997 was significant. On the other hand, the percentage of beneficiaries who said they *tried* to find out about this topic from 1998 to 2000 increased significantly from 4.9 percent in 1998, before the national distribution of the Handbook, to higher rates in the succeeding years (6.4 percent in 1999 and 6.0 percent in 2000).

The percentage of beneficiaries who *needed* to find out about what medical services Medicare covers and does not cover significantly declined between 1995 and the subsequent 2 years to 4.6 percent in 1997 (*Exhibit A.6*). However, the percentage of beneficiaries who *tried* to find out about this topic significantly increased between 1998 and after distribution of the Handbook (from 7.4 percent in 1998 to 9.0 percent in 2000).

We also looked at trends in the percentage of beneficiaries who *needed* to or *tried* to find out information on the availability and benefits of Medicare managed care plans, such as HMOs (*Exhibit A.7*). There was a significant increase in the percentage of beneficiaries who said they *needed* to find out information on Medicare managed care plans between 1995 and 1996 (4.6 percent and 6.2 percent, respectively), as well as between 1995 and 1997 (4.6 percent and 5.7 percent, respectively). The percentage of beneficiaries who *tried* to find out information about Medicare managed care plans increased between 1998 and 1999, before declining in 2000, ranging from 6.1 percent in 1998 to 7.1 percent in 1999 and then down to 4.9 percent in 2000.

More beneficiaries needed or tried to find out about what Medigap or supplemental insurance policies cover than any other topic, and these trends had less fluctuation than others (*Exhibit A.8*). The percentage of beneficiaries who said they *needed* to find out this information significantly declined from 8.0 percent to 6.7 percent between 1995 and 1996, but rose again to 7.6 percent in 1997. Differences over time in the percentage of those who *tried* to find out what Medigap covers between 1998 and 1999, 11.6 percent and 12.5 percent, respectively, were not significant. However, the decline to 10.8 percent of beneficiaries in 2000 was a significant change from the prior year.

The percentage of beneficiaries who said they *needed* to find information about how much they needed to pay for a particular service was small during 1995 to 1997, between 3.1 percent and 3.5 percent (*Exhibit A.9*). In contrast, in 1998 the percentage of those who said they *tried* to find out information on costs was 5.8 percent, and this figure rose to 8.5 percent in 1999 before declining to 6.9 percent in 2000. However, both of the rates after the national distribution of the Handbook were significantly higher than in 1998.

We also measured trends over time in whether beneficiaries said they *needed* to or *tried* to find out information about any of these five topics (*Exhibit A.10*). The percentage of beneficiaries who *needed* to find out any information declined significantly from 1995 (18.6 percent) to 1996 (17.0 percent) and 1997 (17.4 percent). In 1998, 21 percent of beneficiaries *tried* to find out information on at least one of these five topics, and that number increased significantly to 23.9 percent in 1999—coinciding with the first national distribution of the *Medicare & You* Handbook. However, by 2000 only 22.1 percent of beneficiaries tried to find out information on these topics, not significantly different from the pre-Handbook rate.

The top five sources beneficiaries reported using to find out information on any of these five topics did not change substantially over time (*Exhibit A.11*). Responses do not add to 100 percent because beneficiaries could have answered multiple sources for any or all of the topics. The beneficiaries' Medigap or supplemental insurance company remained the most frequently mentioned source of information across the entire period 1995 to 2000, and obtaining information from their doctor and HMO was common throughout the 6-year period as well. A beneficiary's Medicare office, including the toll-free telephone line, was frequently mentioned at the time of the 1998 and 2000 MCBS (14 percent in both years), while 17.8 percent of beneficiaries used Medicare publications at the time of the 1999 MCBS, increasing to 22.5 percent by 2000. Unlike the previous years, by the time of the 1998 MCBS, not being able to find information on a topic of interest was no longer one of the top five beneficiary responses.

Logistic regression analyses were performed to measure whether the *Medicare & You 2001 Handbook* was related to beneficiary information-seeking behavior (*Exhibit A.12*). We measured as outcomes whether beneficiaries tried to find out information on each of the five topics separately—new benefits or changes in Medicare, what medical services Medicare covers, Medicare managed care plans, Medigap plans, the cost of a medical service—and then on any of them as a group. Responses after the distribution of the 2001 Handbook were measured, controlling for beneficiaries' prior information-seeking behavior (whether they tried to find out information about the topic before the first national distribution of the survey) and beneficiary characteristics. Due to sample limitations, the analysis was limited to beneficiaries 65 years of age or older. The policy variable of interest is whether information-seeking behavior outcomes were related to the Handbook: the beneficiary received a copy and read it or received a copy but did not read it compared with not remembering having received a copy.

For each of the five topics, individually and then again for any of the five as a group, we found that seeking information in 2000 was significantly and positively related to having received and read the 2001 Handbook compared with not remembering having received a copy. In contrast, only in relation to trying to find out about new benefits or changes in Medicare was receiving the Handbook and not reading it significantly different from not remembering having received a copy. These beneficiaries are predicted to be significantly *less* likely to try to find out this information. Overall, these results suggest that beneficiaries who are seeking information on topics related to their Medicare coverage are turning to the Handbook. When they have the materials and do not use them, it may be because they are not making any changes and, therefore, do not need the information at that time.

4.2 Awareness

Beneficiary awareness of Medicare education campaign materials is measured through MCBS items asking about awareness of the Medicare toll-free telephone number, using it to get information, and ever having visited the official Medicare web site (*Exhibit 5*). Corresponding descriptive and multivariate results are presented in *Appendix B*. The analysis concerning awareness of the web site was limited to the approximately one-third of beneficiaries who said they had access to the Internet.

Exhibit 5
Awareness research question and related MCBS survey questions used for the
cross-sectional analysis

Research question	MCBS survey questions	MCBS survey years
Are beneficiaries aware of the educational materials available through the Medicare program?	BK54a. Before today, were you aware of the 1-800-MEDICAR(E) toll-free number?	1999–2000
	BK55. Have you ever called 1-800-MEDICAR(E) to get information about Medicare?	1998–2000
	BN28a. Have you ever visited the official web site for Medicare information, www.Medicare.gov?	1999–2000

Approximately half of beneficiaries in 1999, increasing to more than half in 2000, were aware of the toll-free telephone line. However, in both years awareness of the toll-free number was less extensive than receipt of the Handbook (46.6 percent compared with 58.1 percent in 1999 and 57.1 percent compared with 71.3 percent in 2000) (*Exhibits B.1 and A.1*). Still, the percentage of beneficiaries who were aware of the toll-free line increased significantly between 1999 and 2000. The percentage of beneficiaries who called the toll-free line increased as well between 1998 and subsequent years (*Exhibit B.2*). By 2000, 29.0 percent of beneficiaries had called 1-800-MEDICAR(E). Of the approximately one-third of beneficiaries who had Internet access, only a small percentage had ever visited the Medicare web site (10.0 percent in 2000) (*Exhibit B.3*).

Results of logistic regression models estimating the relationship between beneficiary characteristics and whether they were aware of the toll-free line using 1999 and 2000 data are found in *Exhibit B.4*. Beneficiaries who were less likely to be aware of the toll-free number in both years included those who got help with their healthcare decision making compared with those who made their own decisions. In 2000 only, males, beneficiaries with the lowest level of educational attainment (less than ninth grade relative to a high school degree), those who were widowed, and those with no charges for medical care in the current year were also less likely to be aware of the toll-free line. In 2000, those more likely to be aware included beneficiaries 75 years of age or younger, those who had employer-sponsored or privately purchased supplemental insurance coverage, and those with access to the Internet.

Using a logistic regression model, we estimated whether the Handbook was related to beneficiaries 65 years of age or older calling the Medicare toll-free line in the 2000 survey, controlling for their past use of the toll-free line and other characteristics (*Exhibit B.5*). We did not find a significant relationship between the two. Instead, the only significant characteristic was that those who had called the number in the past were significantly more likely to call it in the current year.

4.3 Understanding

4.3.1 Understanding of Campaign Materials

Three MCBS survey items were used to measure beneficiary knowledge and understanding of the Handbook (*Exhibit 6*). They include measures of how easy beneficiaries found the Handbook to understand and, more specifically, how easy they found the plan comparison charts and plan information pages to understand. Corresponding descriptive and multivariate results are presented in *Appendix C*. We found that among beneficiaries who said they received the Handbook, a similarly large percentage in 1998 and 1999 found it at least somewhat easy to understand (86 percent) (*Exhibit C.1*). By 2000, 88 percent of beneficiaries found the Handbook at least somewhat easy to understand, a significant increase from 1998. Ninety-one percent of beneficiaries who looked at the plan comparison charts found them at least somewhat easy to understand in 2000, not a significant change from the prior 2 years (*Exhibit C.2*). Similarly, 89 percent of those in 2000 who looked at the plan information pages found them at least somewhat easy to understand (*Exhibit C.3*).

Exhibit 6
Knowledge/understanding of the campaign materials research question and related MCBS survey questions

Research question	MCBS survey questions	MCBS survey years
Do beneficiaries find the Handbook easy to understand?	BK33. How easy did you find the book to understand?	1998–2000
	BK37. How easy did you find the plan comparison charts to understand?	1998–2000
	BK37b. How easy did you find the plan information pages to understand?	1999–2000

We used ordered logistic regression modeling to measure beneficiary characteristics associated with ease of understanding the Handbook in 1999 and 2000, where the outcome being measured corresponds to increasing levels of ease. Results from these models (*Exhibit C.4*) reveal that only those who got help making healthcare decisions relative to those who made their own decisions found the Handbook significantly harder to understand in both years. In 2000 only, beneficiary characteristics also associated with finding the Handbook harder to understand included having less than a high school education and having public healthcare coverage other than Medicaid during the year. Characteristics of beneficiaries in 2000 associated with finding the Handbook easier to understand included being white, having greater than a high school education, being in very good or excellent health, and having access to the Internet.

4.3.2 Understanding of the Medicare Program

Trends in beneficiary knowledge were limited to changes over time between the MCBS 1998 through 2000 survey years since only for these years are the same MCBS questions available for comparison. Questions were combined to form indices measuring the levels of beneficiary actual and perceived knowledge (*Exhibit 7*). The development and evaluation of

Exhibit 7
Knowledge/understanding of the Medicare program research questions and related MCBS survey questions

Research question	MCBS survey questions	MCBS survey years
Has beneficiaries' actual and perceived knowledge of the Medicare program changed over time?	<i>Nine-item true or false knowledge quiz:</i> <ul style="list-style-type: none"> ▪ BK42b. Medigap or supplemental insurance is the same as a Medicare managed care plan. ▪ BK42c. Medicare covers an annual flu shot. ▪ BK 43. Most people covered by Medicare can select among different kinds of health plan options within Medicare. ▪ BK44. Medicare without a supplemental insurance policy pays for all of your healthcare expenses. ▪ BK46. The Medicare program has begun to offer more information and help in order to answer your Medicare questions. ▪ BK47. People can report complaints to Medicare about their Medicare managed care plans (HMOs) or supplemental plans if they are not satisfied with them. ▪ BK48. If someone joins a Medicare managed care plan (HMO) that covers people on Medicare, they have limited choices about what doctors they can see. ▪ BK49. If someone joins a Medicare managed care plan (HMO) that covers people on Medicare, they can change or drop the plan and still be covered by Medicare. ▪ BK50. Medicare managed care plans (HMOs) that cover people on Medicare often cover more health services, like prescribed medicines, than Medicare without a supplemental policy. 	1998–2000
	<i>Self-reported (perceived) knowledge index:</i> <ul style="list-style-type: none"> ▪ BN1. How much do you feel you know about what medical services Medicare covers or does not cover? ▪ BN2. How much do you feel you know about how much you have to pay for medical services? ▪ BN3. How much do you feel you know about supplemental or Medigap insurance, such as what it covers or how it works with Medicare to pay medical claims? ▪ BN4. How much do you feel you know about the availability and benefits of Medicare managed care plans? ▪ BN5. How much do you feel you know about choosing or finding a doctor or other healthcare provider? 	1998–2000
	<ul style="list-style-type: none"> ▪ BK1. How much do you think you know about the Medicare program? 	1998–2000

these indices has been discussed in a previous research note by Bann and Berkman (2002). We found that beneficiaries' actual and perceived knowledge of the Medicare program was significantly higher in 2000 than in 1998 (*Exhibit C.5*). Also, the percentage of beneficiaries who said they knew at least most of what they needed to know about the Medicare program changed significantly between 1998 and 2000, from 36 percent in 1998, dipping to 33 percent in 1999, and then increasing to 39 percent in 2000 (*Exhibit C.6*). In contrast, in 1998 and 1999, 36 percent to 37 percent of beneficiaries said they knew a little or none of what they needed to know, whereas in 2000 the same was true for 31 percent of beneficiaries.

Using ordered logistic regression models, we estimated the relationship between the Handbook and the level of beneficiary knowledge in 2000, controlling for the level of beneficiary knowledge in 1998 and their characteristics in 2000 (*Exhibit C.7*). We found for both the nine-item knowledge quiz and the perceived knowledge quiz that receiving the *Medicare & You 2001* Handbook and reading it, compared with not receiving it, was significantly related to beneficiaries' having a higher knowledge index score. We found a similar result but of a smaller magnitude comparing beneficiaries who received the Handbook but did not read it with those who did not receive it.

We similarly modeled the relationship between the *Medicare & You 2001* Handbook and how much beneficiaries thought they knew about Medicare. We found that beneficiaries who had read the *Medicare & You 2001* Handbook thought they knew significantly more than those who reported that they did not receive the Handbook, controlling for their perception of how much they knew before the national distribution of the Handbook as well as their characteristics. For this outcome, we did not find a significant difference between those who said they received the Handbook but did not read it and those who reported that they did not receive it. This may imply that some individuals may not be reading the Handbook because they have read it in previous years or because they are knowledgeable about Medicare through other sources.

4.4 Impact/Use

4.4.1 Use of Campaign Materials

The use of Medicare beneficiary education campaign materials is measured through four survey questions about the Handbook: reading it, using it to look up a telephone number, using it to find out information about a health plan, or looking at the pages that contain quality information and graphs (*Exhibit 8*). Corresponding descriptive and multivariate results are presented in *Appendix D*. In this section of the analysis, we also include questions concerning whether beneficiaries had reviewed information about different Medicare health plan options and whether they intended to review information about these options in the next year.

As was found previously by Harris-Kojetin et al. (2001), among beneficiaries who said they received the Handbook, the majority considered it a reference document. The percentage who reported reading it thoroughly was relatively small in all years and declined significantly over time, from 19.2 percent in 1998 to 9.8 percent in 1999 and 7.5 percent in 2000 (*Exhibit D.1*). By 2000, 37.8 percent had not read it at all, up from 27.1 percent in 1998. Still, more than half in each of the 3 years had read part of the Handbook. The percentage of beneficiaries who used the Handbook to look up a telephone number increased significantly between 1998 and subsequent

Exhibit 8
Use of campaign materials research questions and related MCBS survey questions

Research questions	MCBS survey questions	MCBS survey years
Do beneficiaries use the Handbook?	▪ BK30. Would you say that you have read this book thoroughly, have read parts of it, or haven't read it at all?	1998–2000
	▪ BK31. Have you ever used this book to look up a telephone number?	1998–2000
	▪ BK32. Have you ever used this book to find information about health plan options available to you, such as Medicare managed care plans, HMO, or supplemental plans?	1998–2000
	▪ BK37a. Following the local plan information, there are pages that contain plan quality information and graphs. Have you ever looked at these pages?	1999–2000
Do (will) beneficiaries review information about their Medicare health plan options?	▪ BK58. In the past 2 years, Medicare has offered beneficiaries more choices, including more health insurance plans such as HMOs. Have you reviewed information about different Medicare health plan options?	1998–2000
	▪ BK60. Do you intend to review information about your Medicare health plan options in the next year?	1999–2000

years but was still a small percentage of beneficiaries in 2000 (7.8 percent) (*Exhibit D.2*). Similarly, the percentage of beneficiaries who used the Handbook to find out information about health plan options, such as Medicare managed care plans, increased significantly between 1998 and subsequent years, but again, the percentage of beneficiaries who used the Handbook for this purpose was still small in 2000 (11.4 percent) (*Exhibit D.3*). The 14.2 percent of beneficiaries who reviewed the pages of the Handbook containing quality information and graphs in 2000 did not represent a significant change from the prior year, the only other year for which we have data (*Exhibit D.4*).

The percentage of beneficiaries who reviewed information about different Medicare health plan options significantly increased from 13.0 percent in 1998 to 19.6 percent in 2000 (*Exhibit D.5*). Conversely, the percentage of beneficiaries who *intended* to review information about their Medicare health plan options in the next year significantly declined over time (*Exhibit D.6*). Although one-third of beneficiaries in 1998 expected to be reviewing their options in the next year, by 2000 the same was true for only 10.7 percent of beneficiaries.

Ordered logistic regression models were estimated measuring beneficiary characteristics associated with how thoroughly the Handbook was read in 1999 and 2000, with the three levels of the dependent variable representing increased reading of the Handbook (not read at all, read part of it, and read it thoroughly). Also, for each of the 2 years, logistic regression models with dichotomous outcomes of “yes” versus “no” were estimated to model characteristics associated with whether the Handbook had been used to look up a telephone number and whether it was used to find out about health plan options (*Exhibit D.7*). We found that in both years beneficiaries with less than a ninth grade education compared with those with a high school degree, as well as those who needed help making healthcare decisions compared with those who made their own decisions, read significantly less of the book than their comparison group. In both years, widowed beneficiaries were less likely than those who were married to use the Handbook to get a telephone number; in 2000 only, those more likely to get a telephone number from the Handbook included beneficiaries 75 years of age or younger compared with the oldest group and proxy survey respondents compared with those who made their own healthcare decisions. Disabled beneficiaries less than 65 years of age were significantly more likely to use the Handbook to find out about their health options in both 1999 and 2000. In 2000 only, the same was true of beneficiaries enrolled in Medicare managed care plans at some time during the year. On the other hand, in 2000 beneficiaries with less than a ninth grade education were the least likely to use the Handbook to find out about their options.

4.4.2 Impact of the Education Campaign

We examined changes over time in the impact of the Medicare beneficiary education campaign by looking at trends in satisfaction measures. Included are a general measure of satisfaction with the availability of information and measures of whether beneficiaries believed their questions were answered by the information they received on five topics (*Exhibit 9*).

Exhibit 9
Impact research question and related MCBS survey questions

Research question	MCBS survey questions	MCBS survey years
Has beneficiary satisfaction with the availability and content of information changed over time?	PR1a/BK2/BK27aa. How satisfied are you in general with the availability of information about the Medicare program when you need it?	1995–2000
	Were your questions answered by the information you received about:	
	▪ PR4/BK10. New benefits or changes in the Medicare program?	1995–2000
	▪ PR16c/BK18. The availability and benefits of Medicare managed care plans, such as HMOs?	1995–2000
	▪ PR13/BK22. What your Medigap or supplemental insurance policy covers?	1995–2000
	▪ PR16/BK6. How much you need to pay for a particular medical service?	1995–2000
	▪ PR10/BK14. What medical services Medicare covers and does not cover?	1995–2000

Beneficiaries rated their general level of satisfaction with the availability of information between 1995 and 2000. The percentage who were satisfied or very satisfied was very high throughout the period, significantly increasing from a low of 90.1 percent in 1995 to highs of 95.1 percent in 1999 and 94.0 percent in 2000 (*Exhibit D.8*). A higher level of beneficiary satisfaction in 2000, compared with 1998, was significantly related to their having read the *Medicare & You 2001 Handbook*, controlling for their level of satisfaction prior to the national distribution of these handbooks and other characteristics (*Exhibit D.9*).

The percentage of beneficiaries whose questions were answered by the information they received was also high, particularly in the 1998 to 2000 period. More specifically, the percentage of beneficiaries whose questions on benefits or changes in the Medicare program were answered by the information they received stayed consistently high throughout the 6-year period: from a low of 83.1 percent in 1997 to 90 percent or more in 1998 and 2000 (*Exhibit D.10*). Similarly, throughout the period, most beneficiaries responded that their questions were answered by the information they received on the availability and benefits of Medicare managed care plans (*Exhibit D.11*). This rate rose significantly to 95.3 percent by 1998 and then fell in 2000 to close to its pre-1998 levels (90.4 percent). The percentage of beneficiaries whose questions on what their Medigap or supplemental insurance policy covered were answered by the information they received significantly increased between the period of 1995 to 1997 (approximately 86 percent in each of the years) and the 3 subsequent years (between 93 percent and 95 percent) (*Exhibit D.12*). Trends were similar in the percentage of beneficiaries whose questions were answered on how much they needed to pay for a particular medical service (*Exhibit D.13*) and what medical services Medicare covers and does not cover (*Exhibit D.14*). For both topics, between 1995 and 1997 approximately 85 percent to 88 percent of beneficiaries said their questions had been answered; this increased to 91 percent to 92 percent in the 1998 to 2000 period.

4.5 Differences Between Beneficiaries Based on Healthcare Decision-Making Status

This section presents the results of our analysis comparing MCBS 2000 outcomes for beneficiaries based on their healthcare decision-making status. Results are organized by education campaign objectives: access, awareness, understanding, and impact/use. Descriptive charts displaying results are presented in *Appendix E*. Multivariate results refer to models discussed in earlier sections of the results chapter and are thus found in earlier appendices. As shown in *Exhibit E.1*, 65 percent of survey respondents said they made their own healthcare decisions, 27 percent said they got help or someone else made these decisions for them, and for 8 percent, survey questions were answered by a proxy. Proxy respondents included the survey participant's spouse (44 percent), son or daughter (26 percent), and father or mother (11 percent).

4.5.1 Access to Information

Differences between beneficiaries were measured in relation to access to campaign materials and information concerning particular topics of interest. We found significant differences between beneficiaries in the percentage who said they received a copy of the *Medicare & You 2001 Handbook* (*Exhibit E.2*). Beneficiaries who made their own decisions (74.7 percent) were more likely than those who got help (66.6 percent) and proxy respondents (64.6 percent) to say they received a copy. In multivariate analysis, after controlling for other beneficiary

characteristics, we found that only those who got help were significantly less likely than those who made their own healthcare decisions to say they received a copy of the Handbook (*Exhibit A.4*). However, both those who got help and proxy respondents were significantly more likely to not know whether they had received a copy compared with beneficiaries who made their own healthcare decisions and said they did not receive a copy. In contrast, in both descriptive (*Exhibit E.3*) and multivariate analyses (*Exhibit A.4*) of those who received a copy of the 2001 Handbook, we found no difference between groups in the percentage who said they still had a copy (over 92 percent in all groups).

Next, we found no significant differences between the groups in what information they tried to find out about. Descriptively, approximately one-fifth of each group tried to find out information on any of five topics: new benefits or changes in the Medicare program, what medical services Medicare covers and does not cover, the availability and benefits of Medicare managed care plans, what Medigap or supplemental insurance policies cover, and what they need to pay for a particular medical service (*Exhibit E.4*). In multivariate analyses, measuring whether beneficiaries tried to find out about any of these topics in 2000, we also found no differences by these characteristics, controlling for whether beneficiaries tried to find out about any of these topics prior to the first national distribution of the Handbook and whether they received and read the *Medicare & You 2001 Handbook* (*Exhibit A.12*).

4.5.2 Awareness of Education Campaign Materials

Differences between beneficiaries were measured in relation to awareness of campaign-related materials. Descriptively, beneficiaries differed in their awareness of the Medicare toll-free information line (*Exhibit E.5*). Although 60.7 percent of those who made their own healthcare decisions were aware of the line, the same was true of 54.4 percent of proxy survey respondents and 49.9 percent of those who got help making healthcare decisions. Through multivariate analysis, we also found that beneficiaries in both 1999 and 2000 who needed help in their healthcare decision making were significantly less likely than those who made their own decisions to be aware of the hotline, controlling for other beneficiary characteristics (*Exhibit B.4*). We found no differences between proxy respondents and those who made their own decisions.

These three beneficiary groups did not significantly differ in the percentage who had called the toll-free information line (*Exhibit E.6*) or visited the official Medicare web site (*Exhibit E.7*). Similarly, a logistic regression model estimating whether beneficiaries had called the toll-free line did not reveal a significant difference between the three groups, controlling for their use of the toll-free line in 1998 and whether they had received and read the *Medicare & You 2001 Handbook* (*Exhibit B.5*).

4.5.3 Understanding of the Information

Differences between the three groups in their understanding of education campaign materials was measured through an ordered logistic regression model predicting how easy beneficiaries found the *Medicare & You 2001 Handbook* to understand (*Exhibit C.4*). We found that both in 1999 and 2000, beneficiaries who got help with their healthcare decision making said they understood the Handbook significantly less than those who made their own decisions,

controlling for other beneficiary characteristics. In contrast, proxy respondents and those who made their own decisions were not significantly different.

Differences in beneficiary actual and perceived knowledge of important Medicare provisions were measured through their knowledge index scores. Descriptively, we found significant differences between the three groups in both nine-item knowledge index scores (*Exhibit E.8*) and perceived knowledge index scores (*Exhibit E.9*). For both measures, beneficiaries who made their own decisions had the highest score, followed by proxy decision makers and, last, those who received help making decisions. Multivariate models, estimating the relationship between index scores and beneficiary characteristics, scores in 1998, and whether beneficiaries had received and read the *Medicare & You 2001 Handbook*, revealed differences between groups. In relation to the nine-item quiz, beneficiaries who got help making healthcare decisions scored significantly lower on the quiz than those who made their own healthcare decisions (*Exhibit C.7*). No differences were found between proxy respondents and those who made their own decisions. Similarly, those who got help making healthcare decisions perceived their knowledge to be less than those who made their own decisions (*Exhibit C.7*). However, proxy respondents perceived their knowledge in 2000 to be greater than those who made their own decisions, after controlling for other beneficiary characteristics. Multivariate results concerning the overall measure of how much beneficiaries thought they knew about the Medicare program and the nine-item quiz were similar; those who got help with their decision making thought they knew significantly less than those who made their own healthcare decisions, and there was no difference between proxies and those who made their own decisions (*Exhibit C.7*).

4.5.4 Impact/Use of Information

Differences in the use of education campaign materials were measured through questions that asked how thoroughly beneficiaries had read the *Medicare & You 2001 Handbook*. Those who made their own healthcare decisions were most likely to have read the book thoroughly, whereas those who got help with their healthcare decisions were most likely to have not read the book at all (*Exhibit E.10*). That those who got help making healthcare decisions were significantly less likely to read as much of the Handbook as those who made their own decisions was confirmed through multivariate analysis, controlling for other beneficiary characteristics (*Exhibit D.7*). In contrast, we found through logistic regression models that proxy respondents were significantly more likely to use the Handbook to get a telephone number, and there were no differences between the groups in whether they used the Handbook to find out about their health plan options, controlling for other characteristics. Although most beneficiaries in each of the groups were satisfied with the availability of information, differences in the frequency were significant: 94.8 percent of those who made their own decisions, 93.1 percent of those who got help with decisions, and 92.3 percent of proxies (*Exhibit E.11*). Using logistic regression, after controlling for other beneficiary characteristics, including how satisfied they were in 1998, we did not find significant differences in the level of satisfaction with the availability of information between the groups (*Exhibit D.9*).

SECTION 5 SUMMARY AND CONCLUSIONS

While beneficiaries cannot be expected to always be fully rational in their use of information and the choices they make based on information, this analysis utilizes a rational conceptual model. The choice of outcomes used in the analysis is based on a conceptual model in which beneficiaries recognize their need for information, choose from among a variety of potential information sources in an effort to satisfy their need, obtain information to satisfy their need, and, by doing so, increase their knowledge.

Have Need? → Obtained Information → Need Met? → Increased Knowledge

For each of the Medicare education campaign objectives of increasing access, awareness, understanding, and the use/impact of information, we evaluated measures relating specifically to the *Medicare & You* Handbook and other education campaign materials. (*Exhibit 10* provides a summary of these results.) We also examined trends in achieving other selected campaign goal outcomes for up to a 6-year period and, as summarized in *Exhibit 11*, the effect of the Handbook on these outcomes. This section provides a summary of our findings and conclusions.

By 2000, almost three-quarters of beneficiaries had access to the most recent Handbook—in other words, they reported having received a copy. This was a significant improvement from the one-third of beneficiaries in 1998, and the one-half in 1999, who reported having received a copy of the Handbook. Multinomial logistic regression analyses estimating beneficiary characteristics associated with receiving the *Medicare & You 2001* Handbook, as well as the *Medicare & You 2000* Handbook, found that, in both years, those with the least amount of education and those who received help or did not make their own healthcare decisions were less likely to report that they received a copy of the Handbook. Of those who reported having received it, the percentage of beneficiaries who still had a copy increased from 70 percent in 1998 to include virtually the whole group (92 percent) in 2000, suggesting that the book was being retained as a reference document.

We explored trends in the topics of information that beneficiaries tried to access over time. We found that only a small percentage of beneficiaries said they needed or tried to access information on five selected topics: benefits or changes in the Medicare program, the medical services Medicare does and does not cover, what Medigap or supplemental insurance policies cover, the availability and benefits of Medicare managed care plans such as HMOs, and how much beneficiaries need to pay for a particular service. Still, significant increases occurred between 1998 and 2000 (the years before and after the national distribution of the *Medicare & You* Handbook) in the percentage of beneficiaries who tried to obtain information about each of these topics, except what Medigap or supplemental insurance policies cover and managed care plans. By 2000, approximately 10 percent of beneficiaries tried to obtain information about Medicare managed care plans and Medigap policies, whereas the percentage of beneficiaries who sought information about managed care plans declined to 5 percent. The most common sources of information beneficiaries used to get information about these topics stayed relatively constant over time, but by 1999, Medicare publications had become a frequent choice and not being able to find information was no longer one of the top five responses.

Exhibit 10
Summary of cross-sectional logistic regression results

	BK28		BK40		BK54a		BK33	
	Received copy of Handbook		Still have copy of Handbook		Aware of 1-800-MEDICAR(E)		How easy Handbook was to understand	
	Yes vs. no	Don't know vs. no	Yes vs. no		1999	2000	1999	2000
	1999	2000	1999	2000	1999	2000	1999	2000
Age								
<65 years		-						+
65-75 years	+	+						+
Male				-				-
White		+	+	+				+
Education								
Less than 9th grade	-	-						-
Some high school	-							-
Greater than high school								+
Marital status								
Widowed								
Separated/divorced				+				-
Never married								
Health status								
Excellent/very good								+
Good								
Survey respondent								
Proxy				+				-
Gets help	-	-		+				-
Managed care enrollee								
Employer coverage								+
Privately purchased coverage								+
Other public coverage								-
Medicaid		-						
No supplemental								
Cable TV								-
Internet access		+						+
Charges								
\$0								-
\$1-\$600								
> \$600-\$2000		+						
> \$2000-\$7,500		+						
MCBS year								

NOTE: += Significant positive coefficient at less than the .01 level.
 -= Significant negative coefficient at less than the .01 level.

**Exhibit 10
(continued)**

	BK30		BK31		BK32	
	Amount of Handbook read		Used Handbook to get telephone number		Used Handbook to find out about health plan options	
	1999	2000	1999	2000	1999	2000
Age						
<65 years				+	+	+
65-75 years				+		
Male						
White						
Education						
Less than 9th grade	-	-				-
Some high school	-					
Greater than high school						
Marital status						
Widowed			-	-		
Separated/divorced						
Never married						
Health status						
Excellent/very good						
Good						
Survey respondent						
Proxy				+		
Gets help	-					
Managed care enrollee						+
Employer coverage						
Privately purchased coverage						+
Other public coverage						
Medicaid						
No supplemental						
Cable TV						
Internet access						
Charges						
\$0						
\$1-\$600						
> \$600-\$2000						
> \$2000-\$7,500						
MCBS year						

NOTE: + = Significant positive coefficient at less than the .01 level.
 -- = Significant negative coefficient at less than the .01 level.

Exhibit 11

Handbook-specific longitudinal logistic regression results concerning the effect of the *Medicare & You 2001* Handbook on the education campaign goal of increasing access to information over time

	Tried to find out about					Any of the five topics
	New benefits or changes in Medicare	What medical services Medicare covers	Medicare managed care plans	Medigap plans	Cost of a medical service	
Handbook ¹						
Received and read	+	+	+	+	+	+
Received but did not read	-					

¹Omitted category: Did not receive Handbook.

NOTE: Full model results are presented in Exhibit A.12.

+ = significant positive coefficient at less than the .01 level.

- = significant negative coefficient at less than the .01 level.

Finally, we modeled the effect of the latest Handbook, *Medicare & You 2001*, on changes over time in whether beneficiaries tried to get information on any of the five topics. We found that for each of the topics, those who read the Handbook were more likely to have tried to find information about them in 2000 than those who did not remember receiving a copy of the Handbook, controlling for past information-seeking behavior. In contrast, those who received the Handbook but did not read it were less likely to have tried to get information about new benefits or other changes in the Medicare program in the period after they received the *Medicare & You 2001* Handbook.

Therefore, we conclude that the Handbook is becoming more of a valued reference document for beneficiaries over time. For those who need to find out information, the Handbook is at least one of the primary sources being consulted by beneficiaries.

Beneficiary awareness of Medicare education campaign materials was measured through survey questions asking beneficiaries about their awareness of the Medicare toll-free telephone number, whether they had used it to get information, and whether they had ever visited the Medicare web site. We found that in both 1999 and 2000, approximately half of beneficiaries were aware of the toll-free line, fewer than the percentage who reported having received a copy of the *Medicare & You* Handbook. Still, the percentage who had called the toll-free line significantly increased between 1998 and subsequent years. Using logistic regression, we found that, after controlling for other beneficiary characteristics, those who got help with their healthcare decisions were significantly less likely than those who made their own decisions to be aware of the toll-free number. Changes from 1998 to 2000 in whether beneficiaries called the toll-free number were not related to whether beneficiaries had read the *Medicare & You 2001* Handbook. In conclusion, we found that beneficiary awareness of campaign materials is increasing over time.

Among beneficiaries who said they received the Handbook, 86 percent in both 1998 and 1999, increasing to 88 percent in 2000, said they found it at least somewhat easy to understand. Controlling for other beneficiary characteristics, beneficiaries in both 1999 and 2000 who received help making healthcare decisions found the Handbook significantly harder to understand than those who made their own healthcare decisions. In 2000 only, those who did not attend high school and Medicaid beneficiaries also found the Handbook harder to understand.

Trends in beneficiary knowledge were measured by scores on two quizzes that were compared between 1998 and 2000. We found that beneficiaries' actual and perceived knowledge was higher in 2000 than in 1998. Using ordered logistic regression, we found that an increase in a beneficiary's score over the period was positively and significantly related to having read the *Medicare & You 2001 Handbook* when compared with reporting that they did not receive a copy. We found similar results but of a smaller magnitude when comparing beneficiaries who received the Handbook but did not read it and those who reported that they did not receive it. This may imply that some beneficiaries are not reading the most recent Handbook. Similarly, we modeled the effect of the *Medicare & You 2001 Handbook* on changes over time in how much beneficiaries thought they knew about Medicare. We found that having read the Handbook was positively related to how much they thought they knew in 2000 as compared with 1998. Based on these results, we conclude that the Handbook is having a positive effect on beneficiaries' knowledge and that it is significantly related to beneficiaries' increasing their knowledge of Medicare over time.

Further evidence that the Handbook is being used as a reference tool is reflected in the finding that, among those who kept the Handbook, most had not read it thoroughly, and increasingly over time, many had not read it at all. In addition, while increasing significantly over time, only a small percentage had used the Handbook for the two tasks included in the MCBS survey: looking up a telephone number, or finding out about managed care plan options. Beneficiaries with less than a ninth grade education and those who got help making their healthcare decisions were significantly less likely to thoroughly read both *Medicare & You 2000* and *Medicare & You 2001*. Beneficiaries 75 years of age or younger and proxy survey respondents were more likely than older beneficiaries to have used the *Medicare & You 2001 Handbook* to get a telephone number. Additionally, disabled beneficiaries younger than 65 years of age were more likely than beneficiaries 75 years of age or older to have used the 2000 and 2001 Handbooks to find out about their healthcare options. In 2000, beneficiaries enrolled in Medicare managed care plans were more likely to have used the Handbook to learn about their healthcare options, whereas the opposite was true of the least educated beneficiaries. Therefore, while more and more beneficiaries were keeping the Handbook, fewer were using it, perhaps reflecting that they had reviewed earlier editions and were keeping the Handbook in case they needed specific information in the future.

The impact of the education campaign was measured through trends in the level of beneficiary satisfaction with the availability of information over time, and whether they felt their questions were answered on various specific topics. The majority of beneficiaries were satisfied with the availability of information throughout the 1995 to 2000 time period, from a low of 90 percent in 1995 to a peak of 95 percent in 1999, before declining to 94 percent in 2000. A higher level of beneficiary satisfaction in 2000 was significantly related to their having read the *Medicare & You Handbook*, controlling for their level of satisfaction prior to the national

distribution. Generally, beneficiaries' questions were answered by the information they received. However, rates in the percentage of beneficiaries whose questions concerning managed care plans were answered by the information they received declined between 1998 and 2000 (from 95 percent to 90 percent). The same was true of the percentage whose questions concerning supplemental insurance policies were answered by the information they received (from 95 percent to 93 percent). Therefore, we conclude that, generally, the impact of the education campaign has been positive.

In a separate subanalysis, we compared beneficiaries who received help making healthcare decisions or for whom someone else made healthcare decisions with those who made their own decisions and proxy survey respondents. We found that in relation to access to information, understanding, and impact/use, those who received help making decisions typically performed more poorly than those who made their own decisions. In contrast, there were few differences between the latter group and proxy respondents. It is unclear whether this finding indicates a gap in the success of the education campaign since we do not have data on the decision makers for this group—to what extent and what types of decisions these individuals make on their own or the sophistication of those making decisions for them.

In general, based on the data available through multiple years of the MCBS, we found that the education campaign has been achieving its objectives. The amount of information beneficiaries are trying to access appears to be growing. Still, while the distribution of the *Medicare & You* Handbooks has dramatically improved over time, less progress has been made in ensuring that beneficiaries know about the toll-free information line and the Medicare web site. As shown in *Exhibit 10*, in cross-sectional analyses, there are generally few sustained differences between groups in their achievement of education campaign objectives. By 2000, users of the information were more likely to be beneficiaries who were 65 to 75 years of age and those who had access to the Internet. In contrast, those with the least amount of education were found to have more problems across campaign objectives than other groups, as were those who received help making their healthcare decisions. However, in this latter group, we cannot judge the practical impact of these limitations. We did not find similar patterns of differences in relation to others who may be considered vulnerable, such as the disabled, those with no supplemental coverage of any kind, or those who use more healthcare services as indicated through higher expenditures.

Some additions and modifications to the available measures could enhance the ability of the MCBS to evaluate the Medicare education campaign. In particular, there are few questions in the survey measuring awareness. While we analyzed whether beneficiaries had visited the Medicare web site, a more direct measure of awareness would have been whether beneficiaries were aware of the web site. Second, many of the knowledge questions concern Medicare managed care plans. We found that the percentage of beneficiaries who were enrolled in managed care plans was declining as well as the percentage of beneficiaries who used the Handbook to explore managed care options. Trends may be such that managed care is becoming less attractive as an option for beneficiaries and therefore measures of knowledge of the program need to focus on more relevant program characteristics.

Future analyses could evaluate the residual effect of additional exposure to the Handbook. This could assist policy makers in determining the gain from mailing the Handbook annually to all beneficiaries compared with a less frequent schedule. In addition, it would be important to have a more in-depth analysis of whether there are racial/ethnic differences in the effect of the education campaign and, if so, whether differences are diminishing over time.

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**APPENDIX A:
EXHIBITS FOR ACCESS TO INFORMATION**

LIST OF EXHIBITS IN APPENDIX A

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Exhibit A.1

Trend in the percentage of beneficiaries who received a copy of the handbook: MCBS 1998–2000

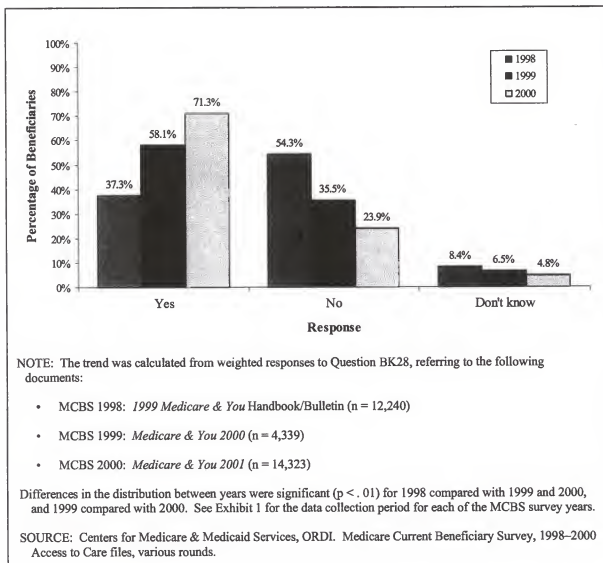
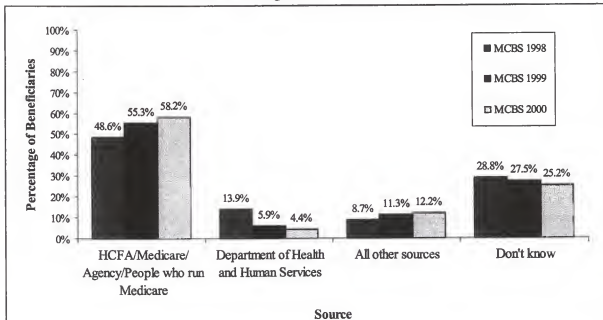


Exhibit A.2

Trend in who beneficiaries thought sent them the book: MCBS 1998–2000



NOTE: The trend was calculated from weighted responses to Question BK29, referring to the following documents:

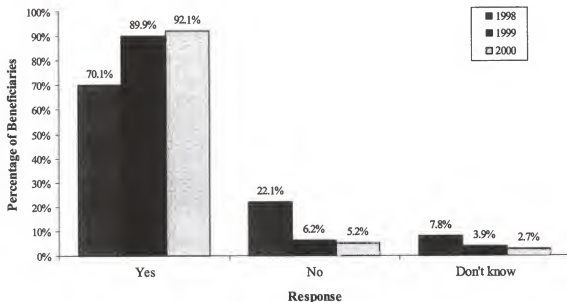
- MCBS 1998: *1999 Medicare & You Handbook/Bulletin* (n = 4,454)
- MCBS 1999: *Medicare & You 2000* (n = 2,457)
- MCBS 2000: *Medicare & You 2001* (n = 9,954)

This question was limited to those who responded “Yes” to BK28. Differences in the distribution between years were significant ($p < .01$) for 1998 compared with 1999, and 1998 compared with 2000. See Exhibit 1 for the data collection period for each of the MCBS survey years.

SOURCE: Centers for Medicare & Medicaid Services, ORDI. Medicare Current Beneficiary Survey, 1998–2000 Access to Care files, various rounds.

Exhibit A.3

Trend in the percentage of beneficiaries who still have the book: MCBS 1998–2000



NOTE: The trend was calculated from weighted responses to BK40, referring to the following documents:

- MCBS 1998: *1999 Medicare & You Handbook/Bulletin* (n = 5,177)
- MCBS 1999: *Medicare & You 2000* (n = 2,456)
- MCBS 2000: *Medicare & You 2001* (n = 9,955)

This question was limited to those who responded “Yes” to BK28. Differences in the distribution between years were significant ($p < .01$) for 1998 compared with 1999, 1998 compared with 2000, and 1999 compared with 2000. See Exhibit 1 for the data collection period for each of the MCBS survey years.

SOURCE: Centers for Medicare & Medicaid Services, ORDI. Medicare Current Beneficiary Survey, 1998–2000 Access to Care files, various rounds.

Exhibit A.4

Logistic regression results concerning the education campaign goal of access to information-campaign materials

Characteristic	BK28 Received copy of the Handbook Yes vs. No		BK28 Received copy of the Handbook Don't Know vs. No		BK40 Still have copy of the Handbook	
	Coefficient (Std. Error)		Coefficient (Std. Error)		Coefficient (Std. Error)	
	1999 (n = 3,836)	2000 (n = 13,150)	1999 (n = 3,836)	2000 (n = 13,150)	1999 (n = 2,136)	2000 (n = 9,004)
Age						
Less than 65 years	-0.059 (0.133)	-0.252* (0.079)	-0.772 (0.301)	-0.348 (0.210)	-0.158 (0.386)	-0.189 (0.194)
65-75 years	0.278* (0.080)	0.194* (0.057)	-0.164 (0.184)	-0.019 (0.124)	-0.050 (0.215)	-0.156 (0.106)
Gender						
Male	0.102 (0.076)	0.031 (0.052)	0.181 (0.185)	-0.034 (0.109)	0.135 (0.204)	-0.436* (0.126)
Race						
White	0.143 (0.113)	0.435* (0.064)	0.564* (0.216)	0.481* (0.147)	-0.051 (0.241)	0.161 (0.163)
Education						
Less than 9th grade	-0.471* (0.116)	-0.220* (0.067)	-0.228 (0.238)	0.035 (0.159)	0.042 (0.311)	-0.058 (0.172)
Some high school	-0.464* (0.097)	-0.100 (0.067)	-0.119 (0.211)	0.044 (0.133)	-0.269 (0.264)	-0.312 (0.165)
Greater than high school	-0.031 (0.095)	0.100 (0.062)	0.417 (0.220)	0.146 (0.139)	-0.078 (0.237)	-0.077 (0.125)
Marital status						
Widowed	-0.023 (0.090)	-0.138 (0.057)	0.341 (0.197)	0.172 (0.124)	0.147 (0.274)	-0.238 (0.152)
Separated/divorced	-1.141 (0.121)	-0.062 (0.081)	0.255 (0.289)	0.522* (0.173)	0.131 (0.334)	-0.032 (0.215)
Never married	-0.164 (0.175)	0.040 (0.088)	0.332 (0.389)	0.183 (0.201)	0.167 (0.428)	-0.000 (0.265)
Self-reported health status						
Excellent/very good	0.069 (0.093)	0.077 (0.063)	-0.159 (0.198)	0.037 (0.145)	-0.015 (0.248)	0.121 (0.144)
Good	0.108 (0.088)	0.020 (0.060)	-0.088 (0.215)	-0.017 (0.135)	0.185 (0.243)	-0.288 (0.136)
Survey respondent/healthcare decision making						
Proxy	-0.186 (0.129)	-0.059 (0.087)	0.655 (0.272)	0.594* (0.184)	-0.694 (0.276)	-0.194 (0.189)
Gets help/someone else makes decisions	-0.259* (0.089)	-0.327* (0.059)	0.227 (0.203)	0.429* (0.118)	-0.270 (0.208)	-0.091 (0.125)
Managed care enrollee						
Enrolled in Medicare managed care plan or other HMO at any time during the year	0.034 (0.134)	-0.015 (0.108)	0.414 (0.277)	-0.126 (0.200)	0.208 (0.398)	0.402 (0.239)

(continued)

Exhibit A.4
(continued)

Characteristic	BK28 Received copy of the Handbook Yes vs. No		BK28 Received copy of the Handbook Don't Know vs. No		BK40 Still have copy of the Handbook	
	Coefficient (Std. Error)		Coefficient (Std. Error)		Coefficient (Std. Error)	
	1999 (n=3,836)	2000 (n=13,150)	1999 (n=3,836)	2000 (n=13,150)	1999 (n=2,136)	2000 (n=9,004)
Employer-sponsored coverage						
Had employer-sponsored coverage at any time during the year	0.243 (0.199)	0.127 (0.150)	-0.122 (0.422)	0.245 (0.281)	0.805 (0.619)	0.116 (0.322)
Privately purchased coverage						
Had privately purchased coverage at any time during the year	0.161 (0.208)	0.100 (0.151)	-0.068 (0.422)	0.289 (0.277)	0.356 (0.596)	0.047 (0.307)
Other public coverage						
Had other public coverage at any time during the year	0.043 (0.205)	0.656 (0.332)	-0.496 (0.547)	0.395 (0.625)	-0.008 (0.620)	-0.302 (0.722)
Medicaid coverage						
Had Medicaid coverage at any time during the year	-0.230 (0.214)	-0.492* (0.124)	-0.211 (0.411)	-0.187 (0.311)	0.663 (0.559)	-0.445 (0.343)
Any supplemental coverage						
Had no supplemental coverage beyond Medicare at any time during the year	-0.019 (0.236)	-0.251 (0.150)	-0.271 (0.458)	-1.112 (0.317)	0.650 (0.636)	0.040 (0.349)
Cable TV						
Has cable TV	0.191 (0.094)	0.148 (0.059)	0.480 (0.193)	0.104 (0.126)	-0.051 (0.247)	-0.384* (0.148)
Internet access						
Has access to the Internet	0.068 (0.091)	0.146* (0.055)	-0.113 (0.182)	-0.028 (0.114)	0.502 (0.243)	0.114 (0.126)
Current year charges						
\$0	-0.104 (0.139)	-0.109 (0.098)	-0.413 (0.317)	0.246 (0.197)	0.072 (0.436)	-0.272 (0.241)
\$1-\$600	0.163 (0.128)	0.048 (0.076)	-0.071 (0.249)	0.033 (0.178)	-0.071 (0.305)	0.312 (0.230)
Greater than \$600 to \$2000	0.226 (0.128)	0.207* (0.069)	0.072 (0.245)	-0.024 (0.161)	0.203 (0.334)	0.058 (0.172)
Greater than \$2000 to \$7500	0.188 (0.116)	0.170* (0.066)	0.020 (0.243)	-0.052 (0.162)	-0.076 (0.302)	0.009 (0.171)
MCBS Year¹	—	-0.049 (0.022)	—	0.055 (0.046)	—	0.033 (0.049)

¹ The number of years the respondent has participated in the MCBS survey is relevant only to the MCBS 2000 models.

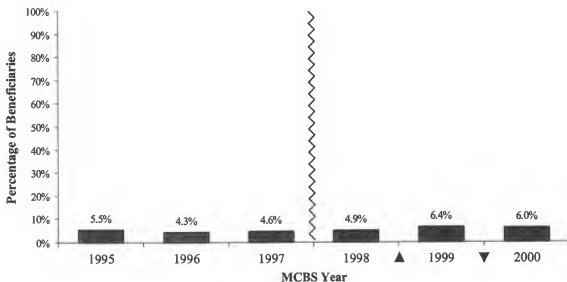
* p < .01

NOTE: Omitted categories include over age 75; female; nonwhite; high school graduate; married; fair/poor health; makes own healthcare decisions; not enrolled in managed care at any time during the year; did not have employer-sponsored coverage at any time during the year; did not have Medigap or other privately purchased coverage at any time during the year; did not have Medicaid coverage at any time during the year; did not have any other public coverage at any time during the year; had supplemental coverage at any time during the year; did not have cable TV; did not have Internet access; Medicare charges greater than \$7,500.

SOURCE: Centers for Medicare & Medicaid Services, ORDI. Medicare Current Beneficiary Survey, 1999 Access to Care files, Round 26 (fielded Jan-Apr 2000), and 2000 Access to Care files, Round 29 (fielded Jan-Apr 2001).

Exhibit A.5

Trend in the percentage of Medicare beneficiaries who needed to (MCBS 1995–1997)/tried to (MCBS 1998–2000) find information in the past year about new benefits or changes in the Medicare program



- ▲ Medicare & You 2000 Handbook mailed fall 1999
- ▼ Medicare & You 2001 Handbook mailed fall 2000

NOTE: The trend was calculated from weighted responses to the following questions:

PR2a (MCBS 1995–1997): In the past year, have you needed to find information about any new benefits or changes in the Medicare program?

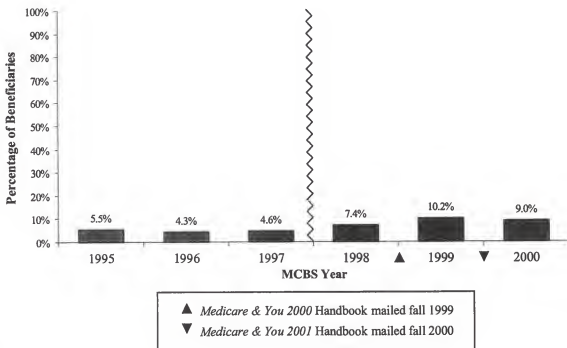
BK7 (MCBS 1998–2000): In the past year, have you tried to find information about any new benefits or changes in the Medicare program?

Differences in the distribution between years were significant ($p < .01$) for 1995 compared with 1996, 1995 compared with 1997, 1998 compared with 1999, and 1998 compared with 2000. See Exhibit 1 for the data collection period for each of the MCBS survey years.

SOURCE: Centers for Medicare & Medicaid Services, ORDI. Medicare Current Beneficiary Survey, 1995–2000 Access to Care files, various rounds.

Exhibit A.6

Trend in the percentage of Medicare beneficiaries who needed to (MCBS 1995–1997)/tried to (MCBS 1998–2000) find information in the past year about what medical services Medicare covers and does not cover



NOTE: The trend was calculated from weighted responses to the following questions:

PR8 (MCBS 1995–1997): In the past year, have you needed to find information about what medical services Medicare covers and does not cover?

BK11 (MCBS 1998–2000): In the past year, have you tried to find information about what medical services Medicare covers and does not cover?

Differences in the distribution between years were significant ($p < .01$) for 1995 compared with 1996, 1995 compared with 1997, 1998 compared with 1999, 1998 compared with 2000, and 1999 compared with 2000. See Exhibit 1 for the data collection period for each of the MCBS survey years.

SOURCE: Centers for Medicare & Medicaid Services, ORDI. Medicare Current Beneficiary Survey, 1995–2000 Access to Care files, various rounds.

Exhibit A.7

Trend in the percentage of Medicare beneficiaries who needed to (MCBS 1995–1997)/tried to (MCBS 1998–2000) find information in the past year about the availability and benefits of Medicare managed care plans, such as HMOs

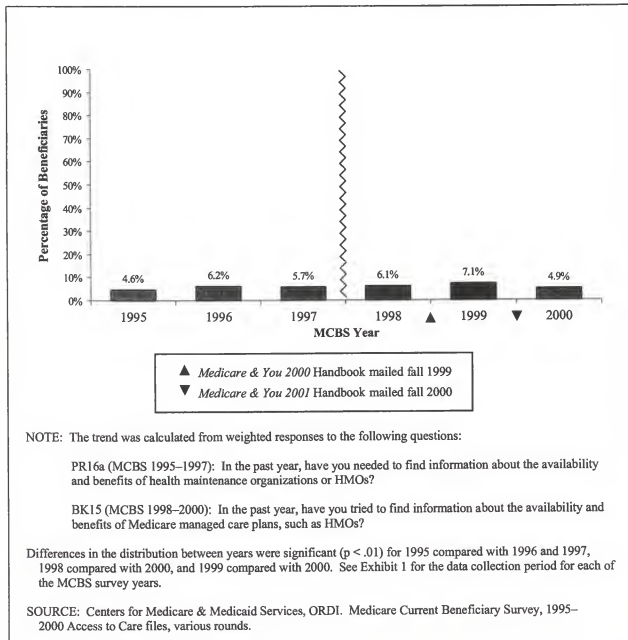
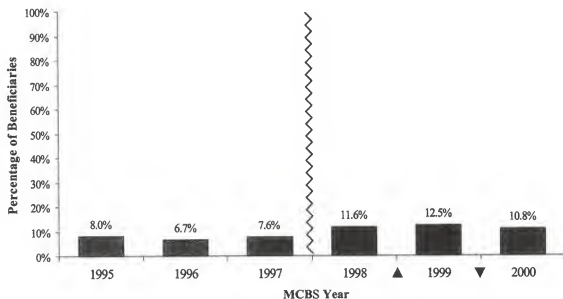


Exhibit A.8

Trend in the percentage of Medicare beneficiaries who needed to (MCBS 1995–1997)/tried to (MCBS 1998–2000) find information in the past year about what their Medigap or supplemental insurance policy covers



▲ Medicare & You 2000 Handbook mailed fall 1999
▼ Medicare & You 2001 Handbook mailed fall 2000

NOTE: The trend was calculated from weighted responses to the following questions:

PR11 (MCBS 1995–1997): In the past year, have you had questions about what your Medigap (supplemental) insurance policy covers?

BK19 (MCBS 1998–2000): In the past year, have you tried to find information about what your Medigap or supplemental insurance policy covers?

Differences in the distribution between years were significant ($p < .01$) for 1995 compared with 1996, and 1999 compared with 2000. See Exhibit 1 for the data collection period for each of the MCBS survey years.

SOURCE: Centers for Medicare & Medicaid Services, ORDI. Medicare Current Beneficiary Survey, 1995–2000 Access to Care files, various rounds.

Exhibit A.9

Trend in the percentage of Medicare beneficiaries who needed to
(MCBS 1995–1997)/tried to (MCBS 1998–2000) find information in the past year
about how much they needed to pay for a particular service

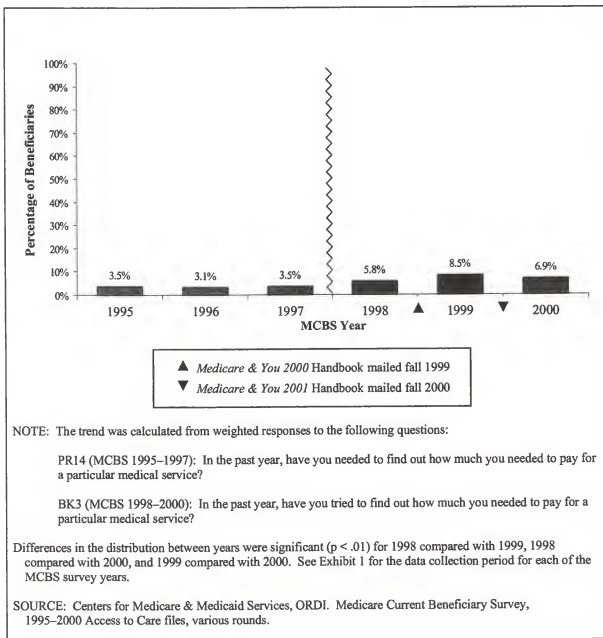


Exhibit A.10

Trend in the percentage of Medicare beneficiaries who needed to (MCBS 1995–1997)/tried to (MCBS 1998–2000) find information about any of the five topics presented in Exhibits A.5–A.9

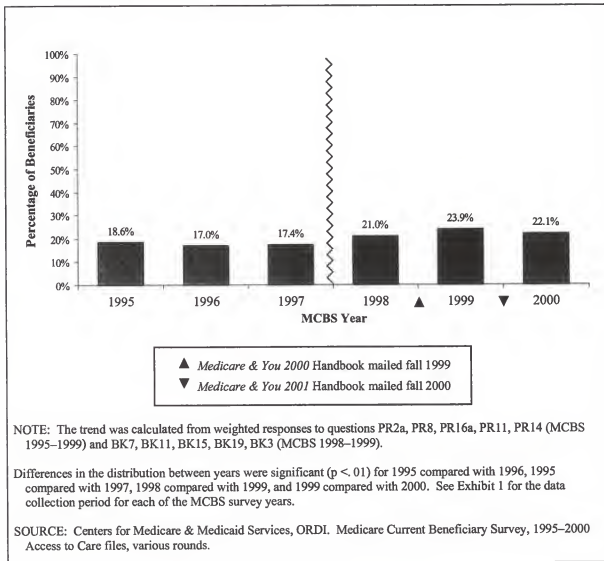


Exhibit A.11

**Top five sources of Medicare information reported by Medicare beneficiaries in the MCBS:
1995–2000**

MCBS 1995	MCBS 1996	MCBS 1997	MCBS 1998	MCBS 1999	MCBS 2000
Medigap or supplemental insurance company (28.0%)	Medigap or supplemental insurance company (23.0%)	Medigap or supplemental insurance company (22.3%)	Medigap or supplemental insurance company (28.9%)	Medigap or supplemental insurance company (22.3%)	Medigap or supplemental insurance company (23.0%)
Doctor (21.4%)	HMO (19.5%)	HMO (21.7%)	Doctor (16.8%)	Doctor (20.7%)	Medicare publications (22.5%)
Did not find information (16.0%)	Doctor (18.7%)	Doctor (17.9%)	HMO (14.4%)	Medicare publications (17.8%)	Doctor (22.5%)
Social security office (15.2%)	Did not find information (14.7%)	Did not find information (17.0%)	Insurance company that processes Medicare claims (14.3%)	HMO (15.3%)	Medicare office including the telephone hotline (13.9%)
Insurance company that processes Medicare claims (14.6%)	Social security office (14.5%)	Social security office (13.2%)	Medicare office including the telephone hotline (14.1%)	Insurance company that processes Medicare claims (14.2%)	Insurance company that processes Medicare claims (13.6%)

NOTE: Responses do not add to 100% because beneficiaries could have answered multiple sources for any or all of the topics. See Exhibit 1 for the data collection period for each of the MCBS survey years.

SOURCE: Centers for Medicare & Medicaid Services, ORDI. Medicare Current Beneficiary Survey, 1995–2000 Access to Care files, various rounds.

Exhibit A.12, Part a

Longitudinal logistic regression results concerning the effect of the *Medicare & You 2001 Handbook* on the education campaign goal of increasing access to information over time

Characteristic	BK7	BK11	BK15
	Tried to find out about new benefits or changes in Medicare	Tried to find out about what medical services Medicare covers	Tried to find out about Medicare managed care plans
	Coefficient (Std. Error)	Coefficient (Std. Error)	Coefficient (Std. Error)
	2000 (n = 4,659)	2000 (n = 4,657)	2000 (n = 4,657)
Handbook			
Received and read	0.820* (0.211)	0.779* (0.164)	0.858* (0.237)
Received but did not read	-0.849* (0.296)	0.002 (0.185)	0.306 (0.268)
1998 outcome¹			
Yes	1.418* (0.225)	0.621* (0.193)	1.163* (0.209)
Age			
65-75 years	-0.012 (0.150)	-0.084 (0.121)	0.123 (0.180)
Gender			
Male	-0.246 (0.170)	-0.421* (0.141)	-0.266 (0.201)
Race			
White	-0.329 (0.231)	0.283 (0.219)	-0.167 (0.229)
Education			
Less than 9th grade	-0.123 (0.300)	-0.617* (0.223)	-0.246 (0.299)
Some high school	0.249 (0.273)	-0.049 (0.200)	-0.193 (0.267)
Greater than high school	0.315 (0.192)	0.110 (0.161)	0.143 (0.210)
Marital status			
Widowed	-0.238 (0.202)	-0.156 (0.168)	-0.390 (0.250)
Separated/divorced	-0.015 (0.268)	0.112 (0.235)	-0.286 (0.380)
Never married	-0.429 (0.546)	-0.659 (0.446)	-1.029* (0.367)
Self-reported health status			
Excellent/very good	-0.192 (0.201)	-0.443* (0.152)	0.274 (0.248)
Good	-0.142 (0.203)	-0.390* (0.147)	-0.011 (0.238)
Survey respondent/healthcare decision making			
Proxy	-0.091 (0.371)	0.148 (0.263)	0.533 (0.385)
Gets help/someone else makes decisions	0.006 (0.160)	0.065 (0.131)	0.306 (0.221)

(continued)

Exhibit A.12, Part a

(continued)

Characteristic	BK7	BK11	BK15
	Tried to find out about new benefits or changes in Medicare	Tried to find out about what medical services Medicare covers	Tried to find out about Medicare managed care plans
	Coefficient (Std. Error)	Coefficient (Std. Error)	Coefficient (Std. Error)
	2000 (n = 4,659)	2000 (n = 4,657)	2000 (n = 4,657)
Managed care enrollee			
Enrolled in Medicare managed care plan or other HMO at any time during the year	0.435 (0.250)	0.863* (0.202)	1.645* (0.372)
Employer-sponsored coverage			
Had employer-sponsored coverage at any time during the year	0.343 (0.258)	0.031 (0.258)	-0.091 (0.689)
Privately purchased coverage			
Had privately purchased coverage at any time during the year	0.828* (0.264)	0.313 (0.250)	0.455 (0.665)
Other public coverage			
Had other public coverage at any time during the year	0.160 (1.175)	-0.501 (0.919)	0.528 (0.950)
Medicaid coverage			
Had Medicaid coverage at any time during the year	-0.139 (0.510)	0.228 (0.300)	0.294 (0.522)
Any supplemental coverage			
Had no supplemental coverage beyond Medicare at any time during the year	0.405 (0.375)	0.061 (0.336)	0.707 (0.793)
Cable TV			
Has cable TV	0.143 (0.160)	-0.311 (0.152)	-0.037 (0.183)
Internet access			
Has access to the Internet	0.631 (0.167)	0.324 (0.139)	0.148 (0.236)
Current year charges			
\$0	-0.146 (0.301)	-0.715* (0.231)	0.617 (0.402)
\$1-\$600	-0.042 (0.278)	-0.170 (0.210)	0.425 (0.358)
Greater than \$600 to \$2000	0.102 (0.223)	-0.117 (0.164)	-0.248 (0.369)
Greater than \$2000 to \$7500	0.048 (0.234)	0.111 (0.173)	-0.192 (0.428)

¹This measures the response to the outcome variable in the MCBS 1998 (Time 1).

* p < .01

NOTE: Omitted categories include did not receive Handbook; 1998 outcome "No"; over age 75; female; nonwhite; high school graduate; married; fair/poor health; makes own healthcare decisions; not enrolled in managed care at any time during the year; did not have employer-sponsored coverage at any time during the year; did not have Medigap or other privately purchased coverage at any time during the year; did not have Medicaid coverage at any time during the year; did not have any other public coverage at any time during the year; had supplemental coverage at any time during the year; did not have cable TV; did not have Internet access; Medicare charges greater than \$7,500.

SOURCE: Centers for Medicare & Medicaid Services, ORDI. Medicare Current Beneficiary Survey, 2000 Access to Care files, Round 29 (fielded Jan-Apr 2001).

Exhibit A.12, Part b

Longitudinal logistic regression results concerning the effect of the *Medicare & You 2001 Handbook* on the education campaign goal of increasing access to information over time

Characteristic	BK19	BK3	
	Tried to find out about Medigap plans	Tried to find out about the cost of a medical service	Tried to find out about any of the five topics
	Coefficient (Std. Error)	Coefficient (Std. Error)	Coefficient (Std. Error)
	2000 (n = 2,987)	2000 (n = 4,654)	2000 (n = 4,660)
Handbook			
Received and read	0.590* (0.192)	0.671* (0.180)	0.786* (0.113)
Received but did not read	-0.098 (0.205)	-0.019 (0.226)	-0.006 (0.118)
1998 outcome¹			
Yes	0.831* (0.193)	1.028* (0.199)	— —
Age			
65–75 years	0.254 (0.155)	0.008 (0.147)	0.109 (0.085)
Gender			
Male	-0.137 (0.144)	-0.075 (0.155)	-0.155 (0.101)
Race			
White	1.139* (0.424)	-0.016 (0.244)	0.105 (0.142)
Education			
Less than 9th grade	-0.657 (0.401)	-0.158 (0.253)	-0.389 (0.153)
Some high school	-0.287 (0.215)	-0.170 (0.202)	-0.101 (0.109)
Greater than high school	-0.070 (0.172)	0.290 0.147	0.045 (0.105)
Marital status			
Widowed	-0.031 (0.190)	0.188 (0.177)	-0.063 (0.111)
Separated/divorced	0.135 (0.289)	0.101 (0.297)	-0.028 (0.174)
Never married	-0.388 (0.439)	0.039 (0.436)	-0.349 (0.260)
Self-reported health status			
Excellent/very good	-0.248 (0.175)	-0.308 (0.185)	-0.250* (0.093)
Good	0.028 (0.182)	-0.111 (0.183)	-0.232 (0.106)
Survey respondent/healthcare decision making			
Proxy	0.346 (0.279)	0.245 (0.271)	0.089 (0.189)
Gets help/someone else makes decisions	-0.005 (0.180)	0.215 (0.169)	0.105 (0.108)

(continued)

Exhibit A.12, Part b

(continued)

Characteristic	BK19	BK3	
	Tried to find out about Medigap plans	Tried to find out about the cost of a medical service	Tried to find out about any of the five topics
	Coefficient (Std. Error)	Coefficient (Std. Error)	Coefficient (Std. Error)
	2000 (n = 2,987)	2000 (n = 4,654)	2000 (n = 4,660)
Managed care enrollee			
Enrolled in Medicare managed care plan or other HMO at any time during the year	0.667 (0.265)	0.719* (0.245)	0.802* (0.155)
Employer-sponsored coverage			
Had employer-sponsored coverage at any time during the year	0.472 (0.412)	-0.301 (0.435)	0.208 (0.216)
Privately purchased coverage			
Had privately purchased coverage at any time during the year	0.304 (0.419)	-0.014 (0.411)	0.366 (0.214)
Other public coverage			
Had other public coverage at any time during the year	0.319 (0.490)	0.064 (0.613)	-0.240 (0.476)
Medicaid coverage			
Had Medicaid coverage at any time during the year	0.479 (1.114)	-0.322 (0.461)	-0.153 (0.231)
Any supplemental coverage			
Had no supplemental coverage beyond Medicare at any time during the year	— —	-0.814 (0.546)	-0.101 (0.284)
Cable TV			
Has cable TV	0.102 (0.185)	-0.119 (0.170)	-0.045 (0.105)
Internet access			
Has access to the Internet	0.258 (0.141)	0.245 (0.153)	0.213 (0.101)
Current year charges			
\$0	-0.436 (0.321)	-1.010* (0.257)	-0.629* (0.192)
\$1-\$600	-0.447 (0.232)	-0.640 (0.227)	-0.341 (0.134)
Greater than \$600 to \$2000	-0.234 (0.194)	-0.549 (0.202)	-0.297 (0.125)
Greater than \$2000 to \$7500	-0.082 (0.179)	-0.211 (0.179)	-0.090 (0.115)

¹ This measures the response to the outcome variable in the MCBS 1998 (Time 1).

* p < .01

NOTE: Omitted categories include did not receive Handbook; 1998 outcome "No"; over age 75; female; nonwhite; high school graduate; married; fair/poor health; makes own healthcare decisions; not enrolled in managed care at any time during the year; did not have employer-sponsored coverage at any time during the year; did not have Medigap or other privately purchased coverage at any time during the year; did not have Medicaid coverage at any time during the year; did not have any other public coverage at any time during the year; had supplemental coverage at any time during the year; did not have cable TV; did not have Internet access; Medicare charges greater than \$7,500.

SOURCE: Centers for Medicare & Medicaid Services, ORDI. Medicare Current Beneficiary Survey, 2000 Access to Care files, Round 29 (fielded Jan-Apr 2001).

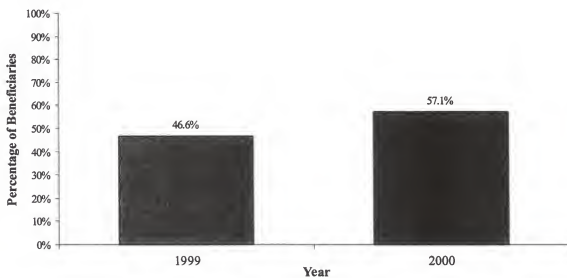
**APPENDIX B:
EXHIBITS FOR AWARENESS OF INFORMATION**

LIST OF EXHIBITS IN APPENDIX B

Exhibit B.1	Trend in the percentage of beneficiaries who were aware of the 1-800-MEDICAR(E) toll-free line: MCBS 1999–2000.....	63
Exhibit B.2	Trend in the percentage of beneficiaries who have called the 1-800-MEDICAR(E) toll-free line: MCBS 1998–2000.....	64
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Exhibit B.1

Trend in the percentage of beneficiaries who were aware of the 1-800-MEDICAR(E) toll-free line:
MCBS 1999–2000



NOTE: The trend was calculated from weighted responses to Question BK54a, referring to the following documents:

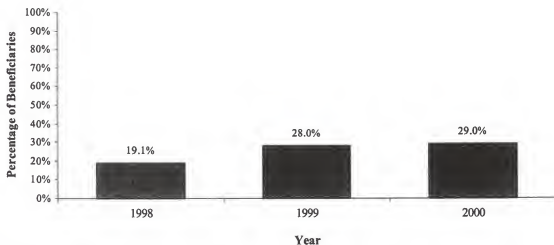
- MCBS 1999: *Medicare & You 2000* (n = 4,312)
- MCBS 2000: *Medicare & You 2001* (n = 14,271)

Differences in the distribution between years were significant ($p < .01$). See Exhibit 1 for the data collection period for each of the MCBS survey years.

SOURCE: Centers for Medicare & Medicaid Services, ORDI. Medicare Current Beneficiary Survey, 1999–2000 Access to Care files, various rounds.

Exhibit B.2

Trend in the percentage of beneficiaries who have called the 1-800-MEDICAR(E) toll-free line:
MCBS 1998–2000



NOTE: The trend was calculated from weighted responses to Question BK55, referring to the following documents:

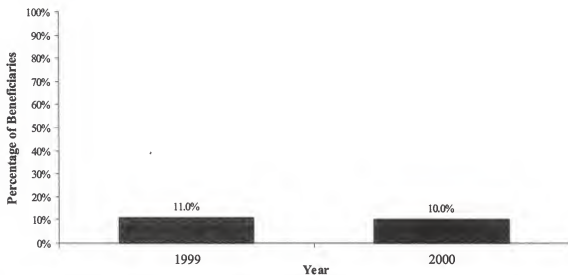
- MCBS 1998: *1999 Medicare & You Handbook/Bulletin* (n = 1,885)
- MCBS 1999: *Medicare & You 2000* (n = 1,985)
- MCBS 2000: *Medicare & You 2001* (n = 8,003)

Differences in the distribution between years were significant ($p < .01$) in 1998 compared with 1999 and 2000. See Exhibit 1 for the data collection period for each of the MCBS survey years.

SOURCE: Centers for Medicare & Medicaid Services, ORDI. Medicare Current Beneficiary Survey, 1998–2000 Access to Care files, various rounds.

Exhibit B.3

Trend in the percentage of beneficiaries who have ever visited the official web site for Medicare information, www.Medicare.gov: MCBS 1999–2000



NOTE: Analysis of weighted data limited to beneficiaries who had ever used the Internet or another on-line service from home, the library, or elsewhere. The trend was calculated from weighted responses to Question BN28a, referring to the following documents:

- MCBS 1999: *Medicare & You 2000* (n = 760)
- MCBS 2000: *Medicare & You 2001* (n = 3,171)

Differences in the distribution between years were not statistically significant ($p < .01$). See Exhibit 1 for the data collection period for each of the MCBS survey years.

SOURCE: Centers for Medicare & Medicaid Services, ORDI. Medicare Current Beneficiary Survey, 1999–2000 Access to Care files, Round 27 (fielded May–Aug 2000).

Exhibit B.4

Logistic regression results concerning the education campaign goal of awareness of information-campaign materials

Characteristic	BK54a	
	Aware of 1-800-MEDICAR(E)	
	Coefficient (Std. Error)	
	1999 (n = 3,822)	2000 (n = 13,113)
Age		
Less than 65 years	0.260 (0.142)	0.254* (0.072)
65-75 years	0.119 (0.083)	0.169* (0.049)
Gender		
Male	-0.003 (0.079)	-0.144* (0.048)
Race		
White	0.007 (0.096)	0.125 (0.069)
Education		
Less than 9th grade	-0.294 (0.127)	-0.366* (0.074)
Some high school	-0.135 (0.102)	-0.097 (0.057)
Greater than high school	0.069 (0.084)	-0.041 (0.055)
Marital status		
Widowed	-0.186 (0.088)	-0.219* (0.047)
Separated/divorced	-0.403* (0.126)	-0.177 (0.073)
Never married	-0.192 (0.141)	-0.167 (0.088)
Self-reported health status		
Excellent/very good	0.150 (0.095)	0.035 (0.055)
Good	0.131 (0.086)	-0.079 (0.049)
Survey respondent/healthcare decision making		
Proxy	-0.086 (0.142)	-0.048 (0.071)
Gets help/someone else makes decisions	-0.347* (0.085)	-0.440* (0.053)
Managed care enrollee		
Enrolled in Medicare managed care plan or other HMO at any time during the year	-0.275 (0.125)	-0.015 (0.076)
Employer-sponsored coverage		
Had employer-sponsored coverage at any time during the year	0.129 (0.202)	0.406* (0.130)

(continued)

Exhibit B.4
(continued)

Characteristic	BK54a Aware of 1-800-MEDICAR(E)	
	Coefficient (Std. Error)	
	1999 (n = 3,822)	2000 (n = 13,113)
Privately purchased coverage		
Had privately purchased coverage at any time during the year	0.121 (0.207)	0.394* (0.132)
Other public coverage		
Had other public coverage at any time during the year	-0.056 (0.222)	-0.003 (0.329)
Medicaid coverage		
Had Medicaid coverage at any time during the year	-0.288 (0.201)	-0.121 (0.135)
Any supplemental coverage		
Had no supplemental coverage beyond Medicare at any time during the year	-0.251 (0.205)	0.007 (0.160)
Cable TV		
Has cable TV	0.106 (0.099)	0.065 (0.063)
Internet access		
Has access to the Internet	-0.010 (0.094)	0.262* (0.052)
Current year charges		
\$0	-0.307 (0.130)	-0.523* (0.084)
\$1-\$600	-0.162 (0.124)	-0.182 (0.081)
Greater than \$600 to \$2000	0.036 (0.129)	-0.003 (0.073)
Greater than \$2000 to \$7500	-0.071 (0.123)	-0.006 (0.077)
MCBS Year¹	—	0.029 (0.019)

¹The number of years the respondent has participated in the MCBS survey is relevant only to the MCBS 2000 models.

* p < .01

NOTE: Omitted categories include over age 75; female; nonwhite; high school graduate; married; fair/poor health; makes own healthcare decisions; not enrolled in managed care at any time during the year; did not have employer-sponsored coverage at any time during the year; did not have Medigap or other privately purchased coverage at any time during the year; did not have Medicaid coverage at any time during the year; did not have any other public coverage at any time during the year; had supplemental coverage at any time during the year; did not have cable TV; did not have Internet access; Medicare charges greater than \$7,500.

SOURCE: Centers for Medicare & Medicaid Services, ORDI. Medicare Current Beneficiary Survey, 1999 Access to Care files, Round 26 (fielded Jan–Apr 2000), and Round 29 (fielded Jan–Apr 2001).

Exhibit B.5

Longitudinal logistic regression results concerning change over time in the education campaign goal of awareness of Medicare's features and options

Characteristic	BK55
	Called 1-800-MEDICAR(E) Coefficient (Std. Error)
	2000 (n = 463)
Handbook	
Received and read	-0.215 (0.341)
Received but did not read	-0.542 (0.485)
BK55 1998	
Called 1-800-MEDICAR(E)	1.531* (0.345)
Age	
65-75 years	0.081 (0.332)
Gender	
Male	-0.157 (0.321)
Race	
White	-1.220 (0.709)
Education	
Less than 9th grade	-0.553 (0.517)
Some high school	0.608 (0.384)
Greater than high school	-0.157 (0.277)
Marital status	
Widowed	-0.170 (0.285)
Separated/divorced	-0.246 (0.548)
Never married	0.490 (0.100)
Self-reported health status	
Excellent/very good	-0.079 (0.473)
Good	0.263 (0.364)
Survey respondent/healthcare decision making	
Proxy	-0.724 (0.580)
Gets help/someone else makes decisions	-0.508 (0.426)

Exhibit B.5

(continued)

Characteristic	BK55
	Called 1-800-MEDICAR(E)
	Coefficient
	(Std. Error)
	2000
	(n = 463)
Managed care enrollee	
Enrolled in Medicare managed care plan or other HMO at any time during the year	0.673 (0.456)
Employer-sponsored coverage	
Had employer-sponsored coverage at any time during the year	1.150 (0.676)
Privately purchased coverage	
Had privately purchased coverage at any time during the year	1.409 (0.638)
Medicaid coverage	
Had Medicaid coverage at any time during the year	0.981 (0.728)
Any supplemental coverage	
Had no supplemental coverage beyond Medicare at any time during the year	-0.305 (1.126)
Cable TV	
Has cable TV	0.003 (0.299)
Internet access	
Has access to the Internet	0.208 (0.219)
Current year charges	
\$0	-2.050 (0.656)
\$1-\$600	-0.415 (0.389)
Greater than \$600 to \$2000	-0.254 (0.367)
Greater than \$2000 to \$7500	-0.595 (0.256)

* p < .01

NOTE: Omitted categories include did not receive Handbook; 1998 outcome "No"; over age 75; female; nonwhite; high school graduate; married; fair/poor health; makes own healthcare decisions; not enrolled in managed care at any time during the year; did not have employer-sponsored coverage at any time during the year; did not have Medigap or other privately purchased coverage at any time during the year; did not have Medicaid coverage at any time during the year; did not have any other public coverage at any time during the year; had supplemental coverage at any time during the year; did not have cable TV; did not have Internet access; Medicare charges greater than \$7,500.

SOURCE: Centers for Medicare & Medicaid Services, ORD1. Medicare Current Beneficiary Survey, 2000 Access to Care files, Round 29.

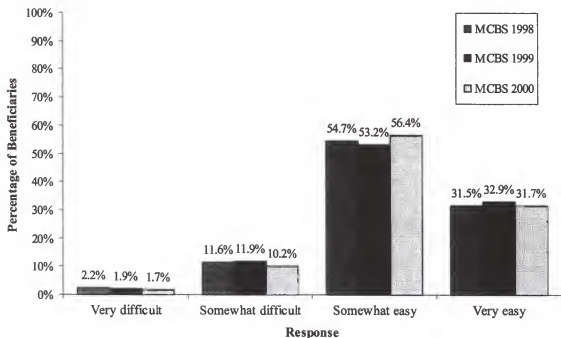
**APPENDIX C:
EXHIBITS FOR UNDERSTANDING OF INFORMATION**

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Exhibit C.1

Trend in how easy beneficiaries found the book to understand: MCBS 1998–2000



NOTE: The trend was calculated from weighted responses to Question BK33, referring to the following documents:

- MCBS 1998: *1999 Medicare & You Handbook/Bulletin* (n = 3,166)
- MCBS 1999: *Medicare & You 2000* (n = 1,615)
- MCBS 2000: *Medicare & You 2001* (n = 6,167)

Differences in the distribution between years were significant ($p < .01$) for 1998 compared with 2000. See Exhibit 1 for the data collection period for each of the MCBS survey years.

SOURCE: Centers for Medicare & Medicaid Services, ORDI. Medicare Current Beneficiary Survey, 1998–2000 Access to Care files, various rounds.

Exhibit C.2

Trend in how easy beneficiaries found the plan comparison charts to understand: MCBS 1998–2000

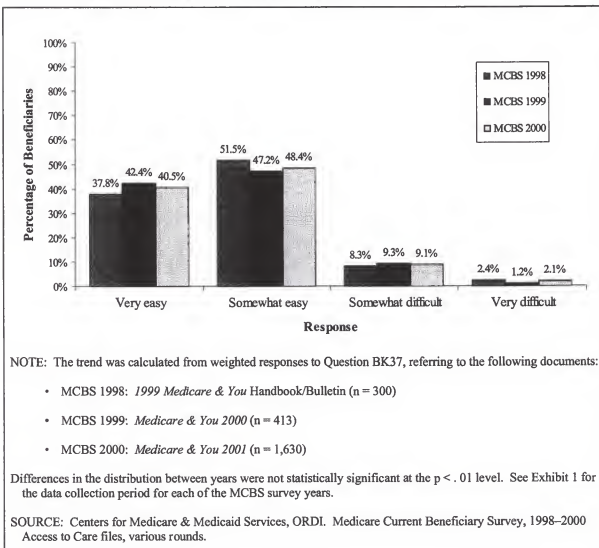
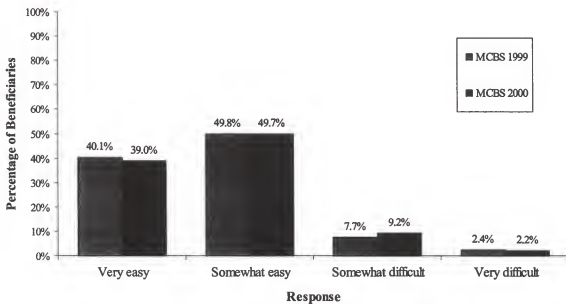


Exhibit C.3

Trend in how easy beneficiaries found the plan information pages to understand: MCBS 1999–2000



NOTE: The trend was calculated from weighted responses to Question BK37b, referring to the following documents:

- MCBS 1999: *Medicare & You 2000* (n = 363)
- MCBS 2000: *Medicare & You 2001* (n = 1,253)

Differences in the distribution between years were not statistically significant at the $p < .01$ level. See Exhibit 1 for the data collection period for each of the MCBS survey years.

SOURCE: Centers for Medicare & Medicaid Services, ORDI. Medicare Current Beneficiary Survey, 1999–2000 Access to Care files, various rounds.

Exhibit C.4

Logistic regression results concerning the education campaign goal of understanding campaign materials

Characteristic	BK33	
	How easy Handbook was to understand	
	Coefficient (Std. Error)	
	1999 (n = 1,468)	2000 (n = 5,752)
Age		
Less than 65 years	0.342 (0.248)	-0.022 (0.119)
65-75 years	0.124 (0.123)	-0.028 (0.063)
Gender		
Male	0.196 (0.127)	-0.051 (0.062)
Race		
White	0.150 (0.142)	0.341* (0.109)
Education		
Less than 9th grade	-0.454 (0.206)	-0.555* (0.096)
Some high school	-0.005 (0.192)	-0.345* (0.096)
Greater than high school	0.220 (0.124)	0.357* (0.069)
Marital status		
Widowed	-0.066 (0.145)	-0.191 (0.077)
Separated/divorced	-0.309 (0.179)	-0.181 (0.104)
Never married	-0.166 (0.274)	-0.075 (0.152)
Self-reported health status		
Excellent/very good	0.415 (0.169)	0.242* (0.087)
Good	0.505* (0.157)	0.024 (0.082)
Survey respondent/healthcare decision making		
Proxy	-0.212 (0.277)	0.078 (0.119)
Gets help/someone else makes decisions	-0.396* (0.147)	-0.471* (0.070)
Managed care enrollee		
Enrolled in Medicare managed care plan or other HMO at any time during the year	0.350 (0.185)	0.023 (0.119)
Employer-sponsored coverage		
Had employer-sponsored coverage at any time during the year	0.347 (0.283)	-0.177 (0.170)

(continued)

Exhibit C.4
(continued)

Characteristic	BK33 How easy Handbook was to understand	
	Coefficient (Std. Error)	
	1999 (n = 1,468)	2000 (n = 5,752)
Privately purchased coverage		
Had privately purchased coverage at any time during the year	0.039 (0.261)	-0.262 (0.157)
Other public coverage		
Had other public coverage at any time during the year	0.011 (0.367)	-1.004* (0.374)
Medicaid coverage		
Had Medicaid coverage at any time during the year	0.212 (0.285)	-0.343 (0.180)
Any supplemental coverage		
Had no supplemental coverage beyond Medicare at any time during the year	-0.156 (0.295)	-0.365 (0.187)
Cable TV		
Has cable TV	-0.097 (0.127)	-0.013 (0.081)
Internet access		
Has access to the Internet	0.278 (0.126)	0.205* (0.068)
Current year charges		
\$0	0.169 (0.230)	-0.010 (0.125)
\$1-\$600	0.173 (0.185)	-0.049 (0.098)
Greater than \$600 to \$2000	0.200 (0.203)	-0.074 (0.090)
Greater than \$2000 to \$7500	0.229 (0.179)	-0.119 (0.093)
MCBS Year¹	—	0.048 (0.026)

¹The number of years the respondent has participated in the MCBS survey is relevant only to the MCBS 2000 models.

* p < .01

NOTE: Omitted categories include over age 75; female; nonwhite; high school graduate; married; fair/poor health; makes own healthcare decisions; not enrolled in managed care at any time during the year; did not have employer-sponsored coverage at any time during the year; did not have Medigap or other privately purchased coverage at any time during the year; did not have Medicaid coverage at any time during the year; did not have any other public coverage at any time during the year; had supplemental coverage at any time during the year; did not have cable TV; did not have Internet access; Medicare charges greater than \$7,500.

SOURCE: Centers for Medicare & Medicaid Services, ORDI. Medicare Current Beneficiary Survey, 1999 Access to Care files, Round 26 (fielded Jan-Apr 2000), and 2000 Access to Care files, Round 29 (fielded Jan-Apr 2001).

Exhibit C.5

Beneficiaries' mean score on knowledge quizzes: MCBS 1998–2000

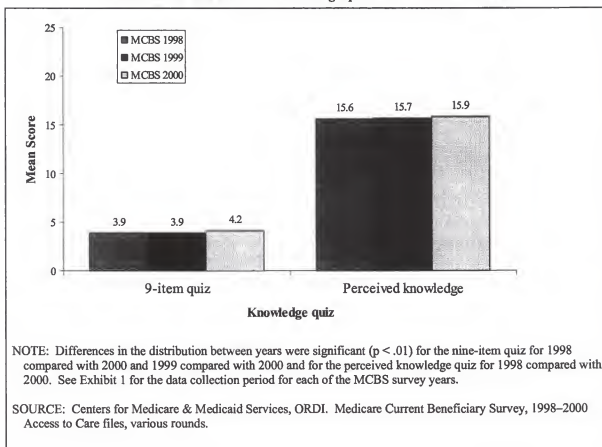
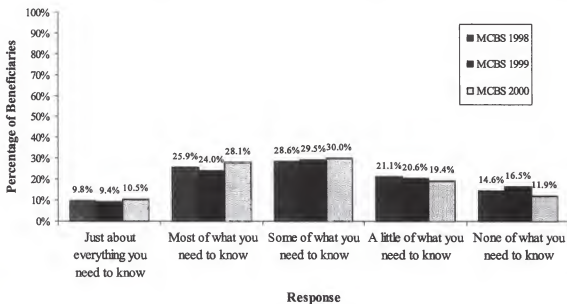


Exhibit C.6

Trend in how much beneficiaries think they know about the Medicare program: MCBS 1998–2000



NOTE: The trend was calculated from weighted responses to Question BK1, referring to the following documents:

- MCBS 1998: *1999 Medicare & You Handbook/Bulletin* (n = 12,162)
- MCBS 1999: *Medicare & You 2000* (n = 4,330)
- MCBS 2000: *Medicare & You 2001* (n = 14,280)

Differences in the distribution between years were significant ($p < .01$) for 1998 compared with 2000, and 1999 compared with 2000. See Exhibit I for the data collection period for each of the MCBS survey years.

SOURCE: Centers for Medicare & Medicaid Services, ORDI. Medicare Current Beneficiary Survey, 1998–2000 Access to Care files, various rounds.

Exhibit C.7

Longitudinal logistic regression results concerning change over time in education campaign goal of understanding the information received to help make informed choices

Characteristic	Nine-item knowledge quiz		Perceived knowledge quiz	BK1 Level of knowledge about Medicare
	Coefficient (Std. Error)		Coefficient (Std. Error)	Coefficient (Std. Error)
	2000 (n = 4,659)	2000 (n = 4,587)	2000 (n = 4,631)	2000 (n = 4,631)
Handbook				
Received and read	0.919* (0.095)	1.400* (0.174)	0.702* (0.082)	
Received but did not read	0.442* (0.107)	0.644* (0.175)	0.200 (0.079)	
Quiz score 1998 ¹	0.398* (0.020)	0.386* (0.021)	— —	
BK1 1998²				
Just about everything	—	—	2.210* (0.146)	
Most	—	—	1.616* (0.114)	
Some	—	—	0.840* (0.107)	
A little	—	—	0.367* (0.102)	
Age				
65–75 years	0.260 (0.069)	0.278 (0.142)	0.021 (0.072)	
Gender				
Male	-0.159 (0.063)	-0.321 (0.148)	-0.091 (0.064)	
Race				
White	0.383* (0.118)	0.780* (0.214)	0.336* (0.098)	
Education				
Less than 9th grade	-0.351* (0.111)	-0.597* (0.216)	-0.381* (0.093)	
Some high school	-0.168 (0.099)	-0.343 (0.210)	-0.250* (0.085)	
Greater than high school	0.196 (0.076)	0.443* (0.168)	0.078 (0.070)	
Marital status				
Widowed	-0.203* (0.070)	-0.378 (0.172)	-0.223* (0.070)	
Separated/divorced	-0.196 (0.117)	-0.369 (0.263)	-0.166 (0.118)	
Never married	-0.131 (0.178)	-0.354 (0.434)	-0.203 (0.144)	

(continued)

Exhibit C.7
(continued)

Characteristic	Nine-item knowledge quiz		BK1 Level of knowledge about Medicare
	Coefficient	Perceived knowledge quiz	Coefficient
	(Std. Error)	(Std. Error)	(Std. Error)
	2000 (n = 4,659)	2000 (n = 4,587)	2000 (n = 4,631)
Self-reported health status			
Excellent/very good	0.154 (0.086)	0.954* (0.175)	0.357* (0.094)
Good	-0.059 (0.088)	0.683* (0.191)	0.247* (0.095)
Survey respondent/healthcare decision making			
Proxy	0.314 (0.150)	0.685* (0.260)	-0.017 (0.120)
Gets help/someone else makes decisions	-0.401* (0.079)	-0.764* (0.153)	-0.515* (0.071)
Managed care enrollee			
Enrolled in Medicare managed care plan or other HMO at any time during the year	0.628* (0.120)	0.568 (0.270)	0.161 (0.107)
Employer-sponsored coverage			
Had employer-sponsored coverage at any time during the year	0.177 (0.151)	-0.196 (0.318)	-0.134 (0.156)
Privately purchased coverage			
Had privately purchased coverage at any time during the year	0.105 (0.158)	-0.161 (0.318)	-0.079 (0.146)
Other public coverage			
Had other public coverage at any time during the year	-0.638 (0.442)	0.480 (0.818)	-0.718 (0.423)
Medicaid coverage			
Had Medicaid coverage at any time during the year	-0.367 (0.164)	-1.671* (0.303)	-0.557* (0.172)
Any supplemental coverage			
Had no supplemental coverage beyond Medicare at any time during the year	-0.263 (0.186)	-1.235* (0.376)	-0.354 (0.178)
Cable TV			
Has cable TV	0.100 (0.073)	0.311 (0.161)	0.049 (0.076)
Internet access			
Has access to the Internet	0.357* (0.071)	0.514* (0.170)	0.212* (0.063)

(continued)

Exhibit C.7
(continued)

Characteristic	Nine-item knowledge quiz		BK1 Level of knowledge about Medicare
	Coefficient (Std. Error)	Coefficient (Std. Error)	Coefficient (Std. Error)
	2000 (n = 4,659)	2000 (n = 4,587)	2000 (n = 4,631)
Current year charges			
\$0	-0.016 (0.123)	-0.475 (0.325)	-0.374 (0.126)
\$1-\$600	0.061 (0.100)	-0.146 (0.204)	-0.131 (0.088)
Greater than \$600 to \$2000	-0.021 (0.110)	0.091 (0.232)	-0.006 (0.096)
Greater than \$2000 to \$7500	-0.005 (0.100)	0.078 (0.197)	-0.026 (0.092)

¹ This characteristic is included only in the knowledge index models.

² This characteristic is included only in the BK1 model.

* p < .01

NOTE: Omitted categories include did not receive Handbook; 1998 BK1 response "Almost None"; over age 75; female; nonwhite; high school graduate; married; fair/poor health; makes own healthcare decisions; not enrolled in managed care at any time during the year; did not have employer-sponsored coverage at any time during the year; did not have Medigap or other privately purchased coverage at any time during the year; did not have Medicaid coverage at any time during the year; did not have any other public coverage at any time during the year; had supplemental coverage at any time during the year; did not have cable TV; did not have Internet access; Medicare charges greater than \$7,500.

SOURCE: Centers for Medicare & Medicaid Services, ORDI. Medicare Current Beneficiary Survey, 2000 Access to Care files, Round 29 (fielded Jan-Apr 2001).

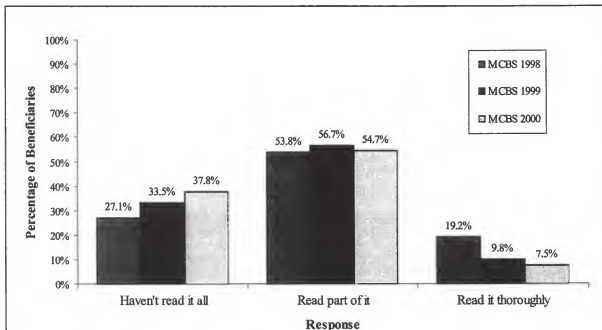
**APPENDIX D:
EXHIBITS FOR USE/IMPACT OF INFORMATION**

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Exhibit D.14	Trend in the percentage of beneficiaries whose questions on what medical services Medicare covers and does not cover were answered by the information they received: MCBS 1995–2000 100

Exhibit D.1

Trend in how thoroughly beneficiaries read the book: MCBS 1998–2000



NOTE: The trend was calculated from weighted responses to Question BK30, referring to the following documents:

- MCBS 1998: *1999 Medicare & You Handbook/Bulletin* (n = 4,454)
- MCBS 1999: *Medicare & You 2000* (n = 2,455)
- MCBS 2000: *Medicare & You 2001* (n = 9,946)

Differences in the distribution between years were significant ($p < .01$) for 1998 compared with 1999, 1998 compared with 2000, and 1999 compared with 2000. See Exhibit 1 for the data collection period for each of the MCBS survey years.

SOURCE: Centers for Medicare & Medicaid Services, ORDI. Medicare Current Beneficiary Survey, 1998–2000 Access to Care files, various rounds.

Exhibit D.2

Trend in the percentage of beneficiaries who have used the book to look up a telephone number:
MCBS 1998–2000

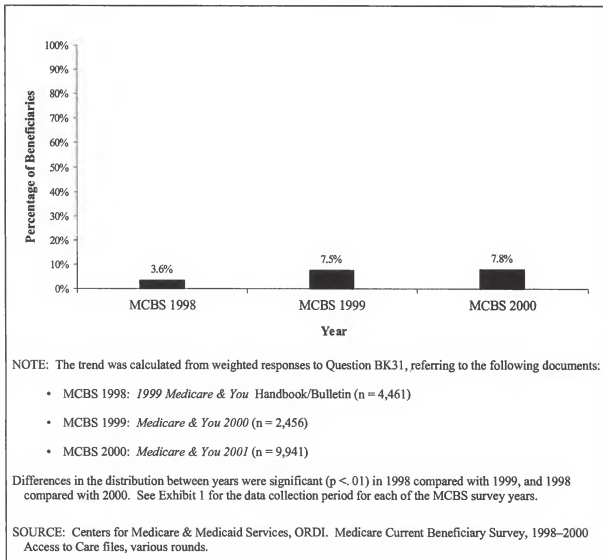


Exhibit D.3

Trend in the percentage of beneficiaries who have used the book to find information about health plan options available to them, such as Medicare managed care plans, HMOs, or supplemental plans: MCBS 1998–2000

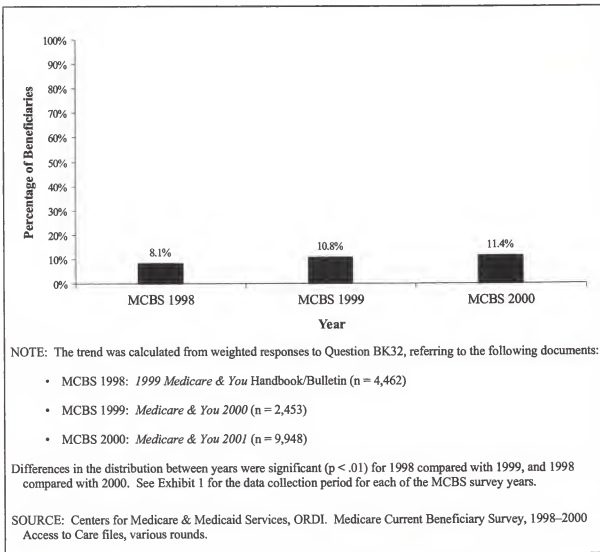


Exhibit D.4

Trends in the percentage of beneficiaries who have looked at the book pages that contain quality information and graphs: MCBS 1999–2000

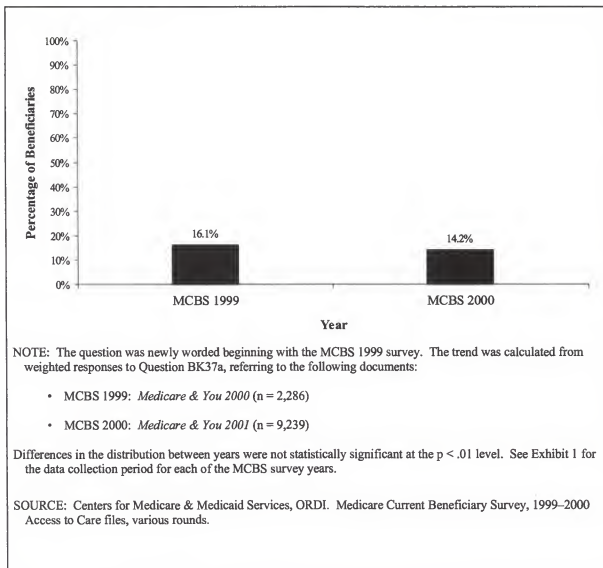


Exhibit D.5

Trend in the percentage of beneficiaries who have reviewed information about different Medicare health plan options: MCBS 1998–2000

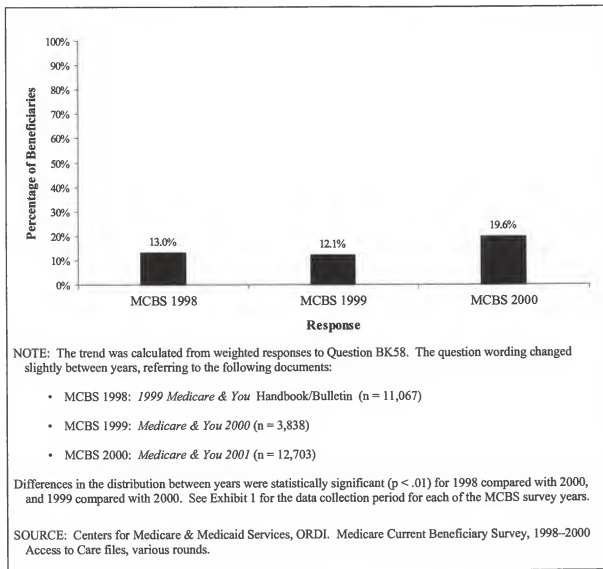
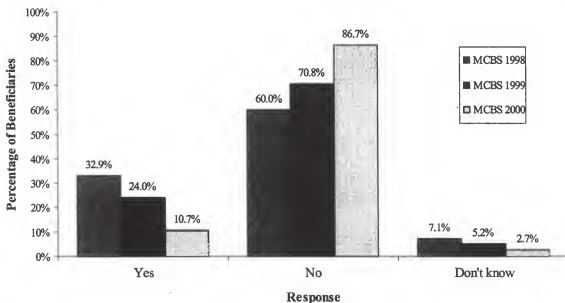


Exhibit D.6

Trend in the percentage of beneficiaries who intend to review information about their Medicare health plan options in the next year: MCBS 1998–2000



NOTE: The trend was calculated from weighted responses to Question BK60, referring to the following documents:

- MCBS 1998: *1999 Medicare & You Handbook/Bulletin* (n = 9,694)
- MCBS 1999: *Medicare & You 2000* (n = 3,407)
- MCBS 2000: *Medicare & You 2001* (n = 10,402)

Differences in the distribution between years were significant ($p < .01$) for 1998 compared with 1999, 1998 compared with 2000, and 1999 compared with 2000. See Exhibit 1 for the data collection period for each of the MCBS survey years.

SOURCE: Centers for Medicare & Medicaid Services, ORDI. Medicare Current Beneficiary Survey, 1998–2000 Access to Care files, various rounds.

Exhibit D.7

Logistic regression results concerning the education campaign goal of impact/use of campaign materials

Characteristic	BK30 Did not read Handbook at all, read part, read it thoroughly		BK31 Used Handbook to get telephone number		BK32 Used Handbook to find out about health plan options	
	Coefficient (Std. Error)		Coefficient (Std. Error)		Coefficient (Std. Error)	
	1999 (n = 2,215)	2000 (n = 9,235)	1999 (n = 2,214)	2000 (n = 9,232)	1999 (n = 2,212)	2000 (n = 9,238)
Age						
Less than 65 years	0.239 (0.163)	0.041 (0.098)	0.453 (0.317)	0.808* (0.163)	0.828* (0.284)	0.566* (0.154)
65–75 years	-0.015 (0.087)	-0.096 (0.051)	0.131 (0.230)	0.311* (0.104)	0.190 (0.199)	0.196 (0.082)
Gender						
Male	0.036 (0.090)	-0.013 (0.049)	-0.033 (0.197)	-0.233 (0.097)	0.121 (0.159)	-0.098 (0.076)
Race						
White	0.112 (0.139)	0.000 (0.070)	-0.275 (0.243)	-0.186 (0.147)	0.111 (0.221)	-0.118 (0.125)
Education						
Less than 9th grade	-0.653* (0.140)	-0.410* (0.084)	-0.268 (0.333)	-0.375 (0.153)	-0.247 (0.277)	-0.374* (0.139)
Some high school	-0.463* (0.141)	-0.160 (0.063)	0.136 (0.292)	-0.096 (0.143)	0.146 (0.261)	-0.155 (0.113)
Greater than high school	0.001 (0.130)	0.003 (0.058)	0.277 (0.189)	0.122 (0.115)	0.193 (0.188)	0.106 (0.091)
Marital status						
Widowed	-0.104 (0.110)	-0.135 (0.066)	-0.727* (0.265)	-0.348* (0.117)	0.168 (0.201)	-0.153 (0.094)
Separated/divorced	-0.380 (0.174)	-0.181 (0.086)	-0.022 (0.290)	-0.367 (0.179)	-0.117 (0.268)	-0.114 (0.137)
Never married	-0.468 (0.239)	-0.223 (0.105)	-0.270 (0.385)	-0.436 (0.201)	-0.680 (0.398)	-0.231 (0.170)
Self-reported health status						
Excellent/very good	-0.019 (0.128)	0.047 (0.068)	0.017 (0.250)	0.053 (0.117)	-0.176 (0.199)	-0.022 (0.118)
Good	-0.083 (0.112)	0.017 (0.072)	0.200 (0.253)	0.018 (0.119)	-0.168 (0.187)	0.051 (0.111)
Survey respondent/healthcare decision making						
Proxy	-0.211 (0.177)	-0.143 (0.105)	-0.187 (0.343)	0.618* (0.188)	-0.143 (0.293)	0.138 (0.142)
Gets help/someone else makes decisions	-0.568* (0.095)	-0.409* (0.068)	-0.117 (0.219)	-0.057 (0.129)	-0.235 (0.163)	-0.112 (0.105)
Managed care enrollee						
Enrolled in Medicare managed care plan or other HMO at any time during the year	-0.020 (0.188)	0.062 (0.089)	0.070 (0.293)	0.249 (0.146)	0.250 (0.239)	0.431* (0.146)

(continued)

Exhibit D.7

(continued)

Characteristic	BK30 Did not read Handbook at all, read part, read it thoroughly ¹		BK31 Used Handbook to get telephone number		BK32 Used Handbook to find out about health plan options	
	Coefficient (Std. Error)		Coefficient (Std. Error)		Coefficient (Std. Error)	
	1999 (n = 2,215)	2000 (n = 9,235)	1999 (n = 2,214)	2000 (n = 9,232)	1999 (n = 2,212)	2000 (n = 9,238)
Employer-sponsored coverage						
Had employer-sponsored coverage at any time during the year	-0.269 (0.254)	-0.082 (0.130)	0.777 (0.461)	-0.155 (0.229)	0.323 (0.425)	0.353 (0.219)
Privately purchased coverage						
Had privately purchased coverage at any time during the year	-0.123 (0.243)	-0.002 (0.122)	0.566 (0.450)	-0.204 (0.233)	0.529 (0.444)	0.583* (0.223)
Other public coverage						
Had other public coverage at any time during the year	0.438 (0.194)	-0.108 (0.262)	0.101 (0.659)	-0.485 (0.518)	0.062 (0.447)	-0.020 (0.470)
Medicaid coverage						
Had Medicaid coverage at any time during the year	-0.293 (0.270)	-0.058 (0.137)	1.040 (0.527)	-0.235 (0.260)	0.239 (0.457)	0.147 (0.225)
Any supplemental coverage						
Had no supplemental coverage beyond Medicare at any time during the year	-0.084 (0.283)	-0.084 (0.144)	0.702 (0.514)	0.006 (0.282)	0.224 (0.522)	0.539 (0.265)
Cable TV						
Has cable TV	-0.132 (0.106)	0.059 (0.063)	-0.306 (0.206)	0.002 (0.101)	-0.425 (0.184)	-0.034 (0.093)
Internet access						
Has access to the Internet	0.095 (0.110)	0.132 (0.058)	0.485 (0.186)	0.063 (0.089)	0.342 (0.173)	0.209 (0.099)
Current year charges						
\$0	-0.029 (0.202)	0.021 (0.099)	-0.336 (0.329)	0.042 (0.192)	-0.011 (0.259)	0.143 (0.168)
\$1-\$600	-0.011 (0.148)	0.109 (0.076)	-0.344 (0.328)	-0.177 (0.172)	-0.169 (0.266)	0.006 (0.124)
Greater than \$600 to \$2000	-0.021 (0.143)	0.055 (0.075)	0.168 (0.308)	0.215 (0.153)	0.099 (0.230)	0.062 (0.127)
Greater than \$2000 to \$7500	-0.109 (0.145)	0.070 (0.068)	-0.266 (0.306)	0.043 (0.150)	-0.356 (0.269)	0.060 (0.122)
MCBS Year²	—	-0.012 (0.020)	—	-0.058 (0.032)	—	-0.086* (0.028)

¹Estimates characteristics related to increasing levels of thoroughness.

²The number of years the respondent has participated in the MCBS survey is relevant only to the MCBS 2000 models.

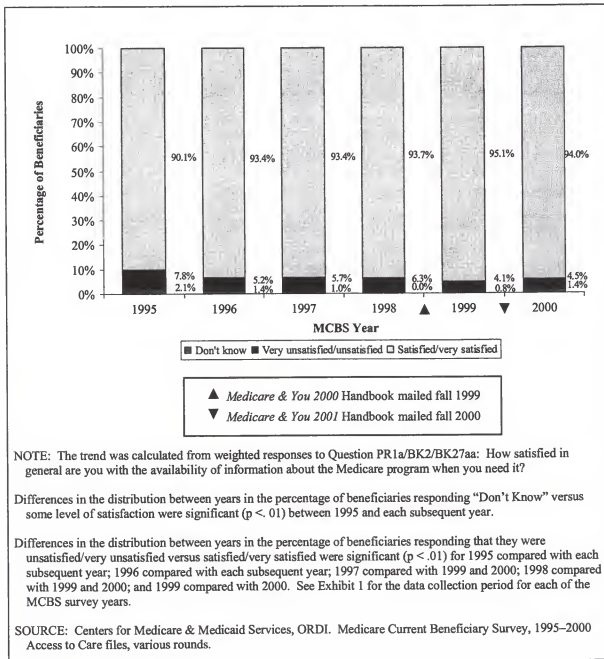
* p < .01

NOTE: Omitted categories include over age 75; female; nonwhite; high school graduate; married; fair/poor health; makes own healthcare decisions; not enrolled in managed care at any time during the year; did not have employer-sponsored coverage at any time during the year; did not have Medicaid or other privately purchased coverage at any time during the year; did not have Medicaid coverage at any time during the year; did not have any other public coverage at any time during the year; had supplemental coverage at any time during the year; did not have cable TV; did not have Internet access; Medicare charges greater than \$7,500.

SOURCE: Centers for Medicare & Medicaid Services, ORDL Medicare Current Beneficiary Survey, 1999 Access to Care files, Round 26 (filed Jan-Apr 2000), and 2000 Access to Care files, Round 29 (filed Jan-Apr 2001).

Exhibit D.8

Trend in the percentage of beneficiaries who were satisfied in general with the availability of information about the Medicare program when they needed it: MCBS 1995–2000



NOTE: The trend was calculated from weighted responses to Question PR1a/BK2/BK27aa: How satisfied in general are you with the availability of information about the Medicare program when you need it?

Differences in the distribution between years in the percentage of beneficiaries responding “Don’t Know” versus some level of satisfaction were significant ($p < .01$) between 1995 and each subsequent year.

Differences in the distribution between years in the percentage of beneficiaries responding that they were unsatisfied/very unsatisfied versus satisfied/very satisfied were significant ($p < .01$) for 1995 compared with each subsequent year; 1996 compared with each subsequent year; 1997 compared with 1999 and 2000; 1998 compared with 1999 and 2000; and 1999 compared with 2000. See Exhibit 1 for the data collection period for each of the MCBS survey years.

SOURCE: Centers for Medicare & Medicaid Services, ORDI. Medicare Current Beneficiary Survey, 1995–2000 Access to Care files, various rounds.

Exhibit D.9

Longitudinal logistic regression results concerning change over time in the education campaign goal of using the information they receive to make choices

Characteristic	BK27aa
	Level of satisfaction with availability of information
	Coefficient (Std. Error)
	2000 (n = 3,697)
Handbook	
Received and read	0.356* (0.113)
Received but did not read	0.209 (0.127)
BK27aa 1998	
Very satisfied	2.088 (0.279)
Satisfied	1.078 (0.245)
Age	
65–75 years	-0.130 (0.096)
Gender	
Male	-0.167 (0.111)
Race	
White	0.096 (0.143)
Education	
Less than 9th grade	-0.269 (0.181)
Some high school	-0.186 (0.120)
Greater than high school	-0.006 (0.115)
Marital status	
Widowed	-0.123 (0.109)
Separated/divorced	-0.174 (0.181)
Never married	-0.501 (0.280)
Self-reported health status	
Excellent/very good	0.433* (0.145)
Good	0.125 (0.149)

(continued)

Exhibit D.9
(continued)

Characteristic	BK27aa
	Level of satisfaction with availability of information
	Coefficient (Std. Error)
	2000 (n = 3,697)
Survey respondent/healthcare decision making	
Proxy	0.283 (0.173)
Gets help/someone else makes decisions	-0.212 (0.124)
Managed care enrollee	
Enrolled in Medicare managed care plan or other HMO at any time during the year	0.132 (0.207)
Employer-sponsored coverage	
Had employer-sponsored coverage at any time during the year	-0.045 (0.256)
Privately purchased coverage	
Had privately purchased coverage at any time during the year	-0.217 (0.242)
Other public coverage	
Had other public coverage at any time during the year	-0.200 (0.446)
Medicaid coverage	
Had Medicaid coverage at any time during the year	-0.409 (0.248)
Any supplemental coverage	
Had no supplemental coverage beyond Medicare at any time during the year	-0.470 (0.296)
Cable TV	
Has cable TV	-0.089 (0.109)
Internet access	
Has access to the Internet	0.247 (0.116)
Current year charges	
\$0	-0.453 (0.230)
\$1-\$600	-0.442* (0.135)
Greater than \$600 to \$2000	-0.284 (0.146)
Greater than \$2000 to \$7500	-0.283 (0.136)

* p < .01

NOTE: Omitted categories include did not receive Handbook; over age 75; female; nonwhite; high school graduate; married; fair/poor health; makes own healthcare decisions; not enrolled in managed care at any time during the year; did not have employer-sponsored coverage at any time during the year; did not have Medigap or other privately purchased coverage at any time during the year; did not have Medicaid coverage at any time during the year; did not have any other public coverage at any time during the year; had supplemental coverage at any time during the year; did not have cable TV; did not have Internet access; Medicare charges greater than \$7,500.

SOURCE: Centers for Medicare & Medicaid Services, ORDI. Medicare Current Beneficiary Survey, 2000 Access to Care files, Round 29 (Jan-Apr 2001).

Exhibit D.10

Trend in the percentage of beneficiaries whose questions on benefits or changes in the Medicare program were answered by the information they received:
MCBS 1995–2000

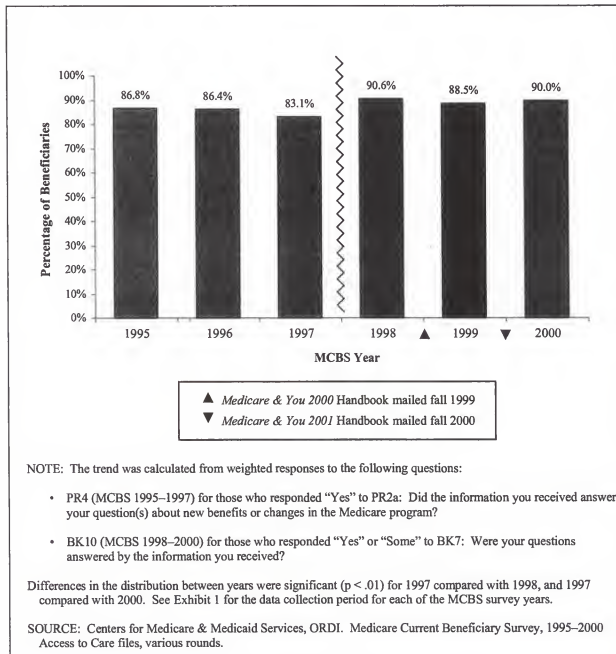
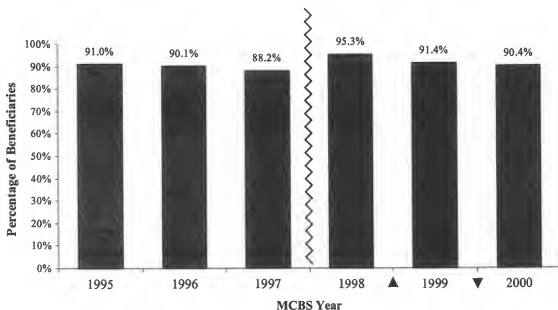


Exhibit D.11

Trend in the percentage of beneficiaries whose questions on the availability and benefits of Medicare managed care plans, such as HMOs, were answered by the information they received: MCBS 1995–2000



▲ Medicare & You 2000 Handbook mailed fall 1999
▼ Medicare & You 2001 Handbook mailed fall 2000

NOTE: The trend was calculated from weighted responses to the following questions:

- PR16c (MCBS 1995–1997) for those who responded “Yes” to PR16a: Did the information you received answer your question(s) about the availability and benefits of health maintenance organizations or HMOs? “Yes” vs. “No.”
- BK18 (MCBS 1998–1999) for those who responded “Yes” to BK15: Were your questions answered by the information you received? “Yes” or “Some” vs. “No.”

Differences in the distribution between years were significant ($p < .01$) for 1996 compared with 1998, 1997 compared with 1998, 1998 compared with 1999, and 1999 compared with 2000. See Exhibit 1 for the data collection period for each of the MCBS survey years.

SOURCE: Centers for Medicare & Medicaid Services, ORDI. Medicare Current Beneficiary Survey, 1995–2000 Access to Care files, various rounds.

Exhibit D.12

Trend in the percentage of beneficiaries whose questions on what their Medigap or supplemental insurance policy covers were answered by the information they received: MCBS 1995–2000

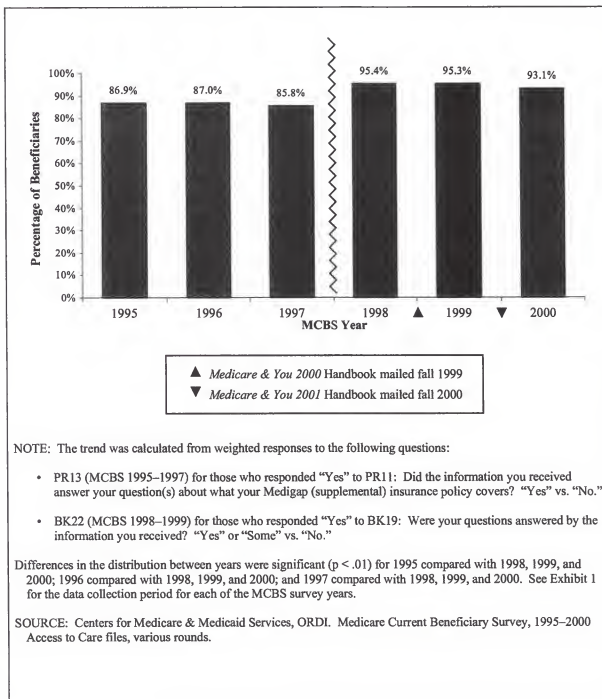


Exhibit D.13

Trend in the percentage of beneficiaries whose questions on how much they need to pay for a particular medical service were answered by the information they received: MCBS 1995–2000

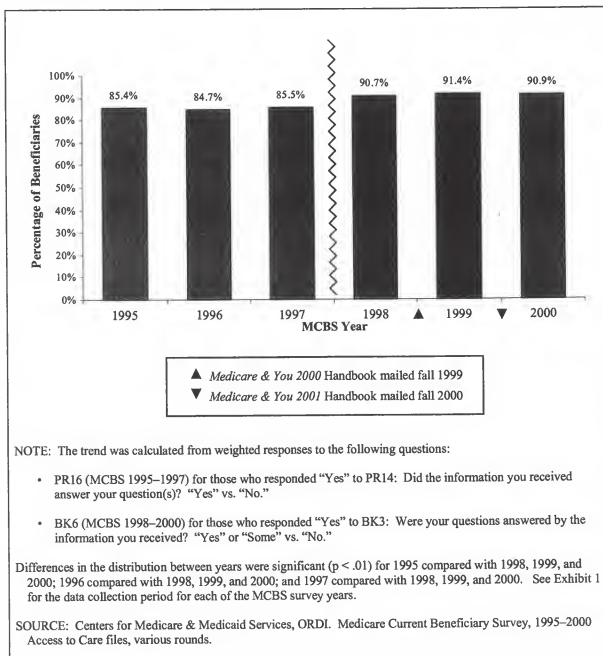
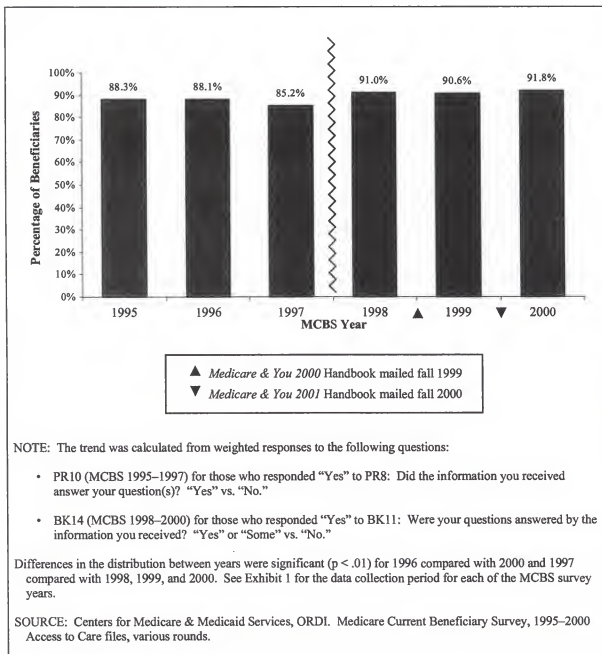


Exhibit D.14

Trend in the percentage of beneficiaries whose questions on what medical services Medicare covers and does not cover were answered by the information they received: MCBS 1995–2000



**APPENDIX E:
EXHIBITS FOR DIFFERENCES AMONG THOSE WHO MAKE THEIR OWN
HEALTHCARE DECISIONS, THOSE WHO RECEIVE ASSISTANCE, AND PROXY
SURVEY RESPONDENTS**

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Exhibit E.1

Distribution of MCBS respondents by healthcare decision-making status

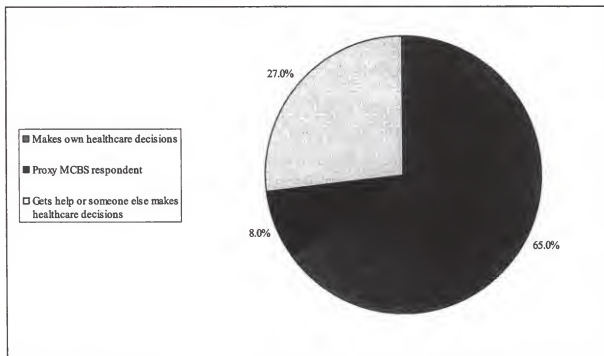


Exhibit E.2

Percentage of beneficiaries who received the *Medicare & You 2001 Handbook* by type of survey respondent/healthcare decision making

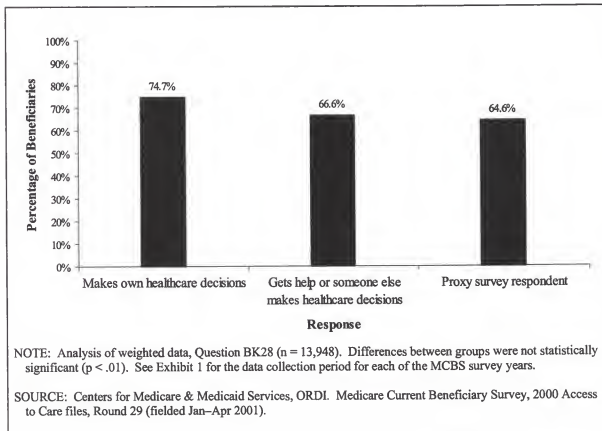


Exhibit E.3

Percentage of beneficiaries who still have the *Medicare & You 2001 Handbook* by type of survey respondent/healthcare decision making

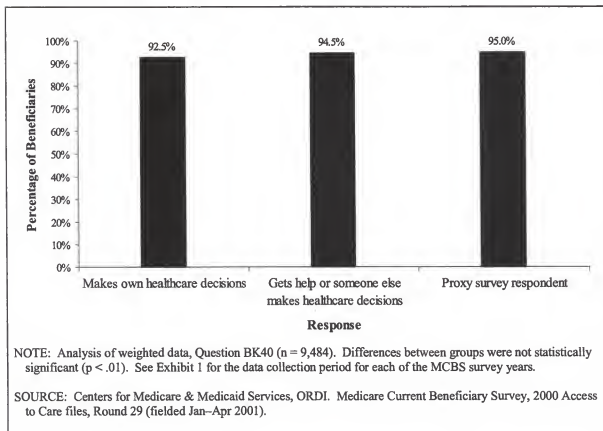


Exhibit E.4

Percentage of beneficiaries who have tried to find out information on any of five topics by type of survey respondent/healthcare decision making

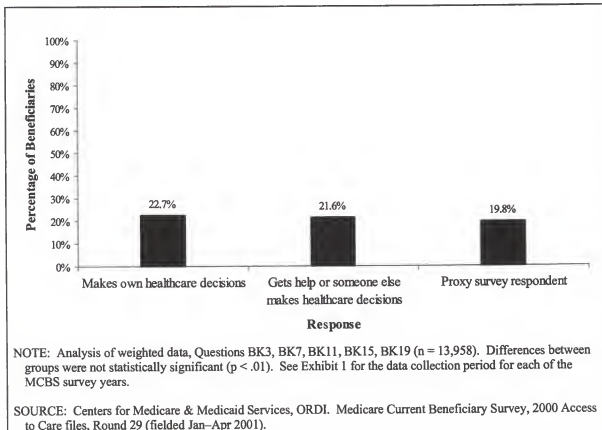


Exhibit E.5

Percentage of beneficiaries who are aware of the 1-800-MEDICAR(E) toll-free number

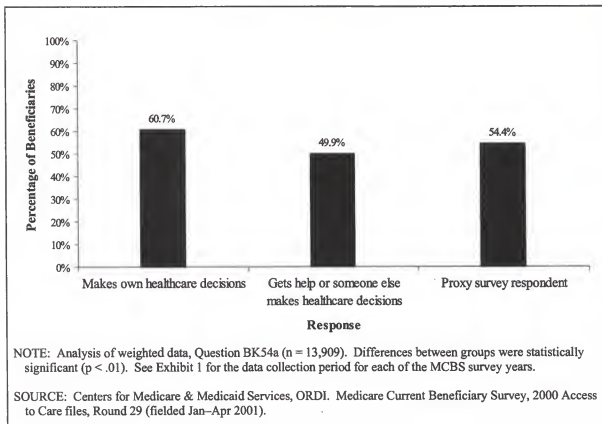


Exhibit E.6

Percentage of beneficiaries who have called the 1-800-MEDICAR(E) number to get information by type of survey respondent/healthcare decision making

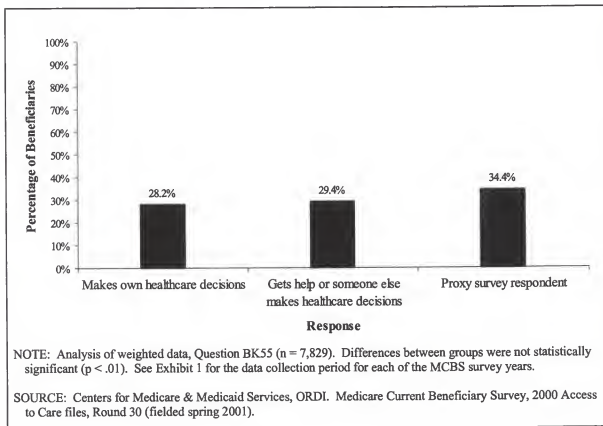


Exhibit E.7

Percentage of beneficiaries who have visited the official web site for Medicare information by type of survey respondent/healthcare decision making

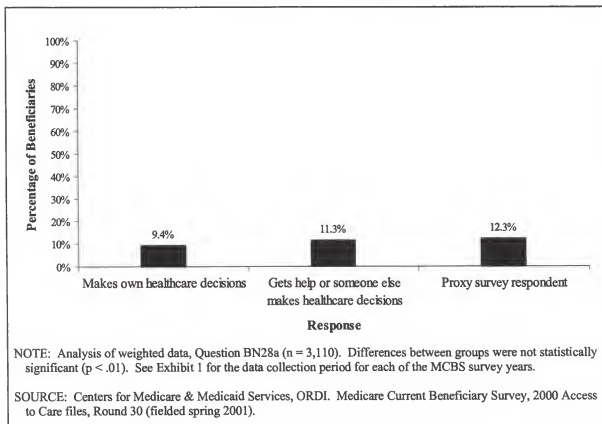


Exhibit E.8

Mean beneficiary nine-item knowledge score by type of survey respondent/healthcare decision making

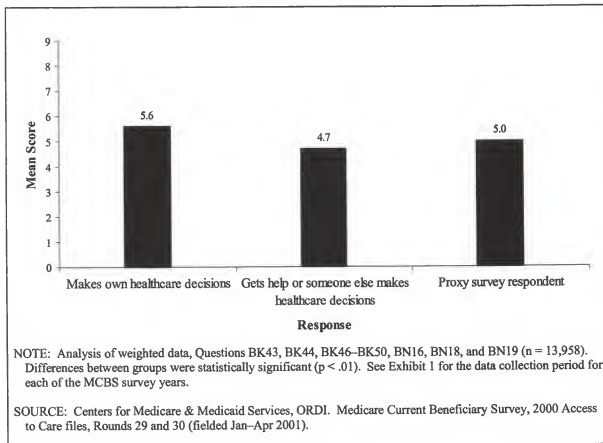


Exhibit E.9

Mean beneficiary perceived knowledge score by type of survey respondent/healthcare decision making

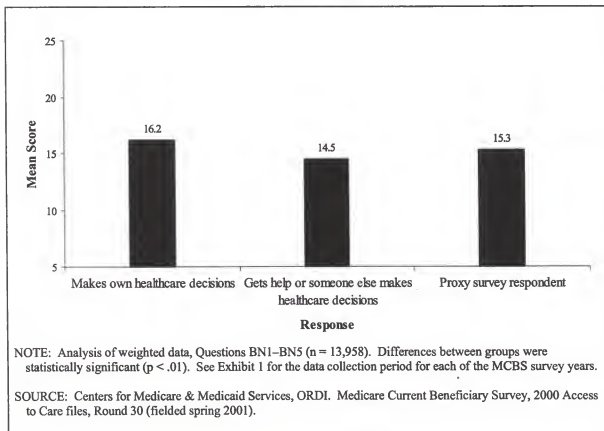


Exhibit E.10

Distribution of beneficiaries by the extent to which they read the *Medicare & You 2001 Handbook* by type of survey respondent/healthcare decision making

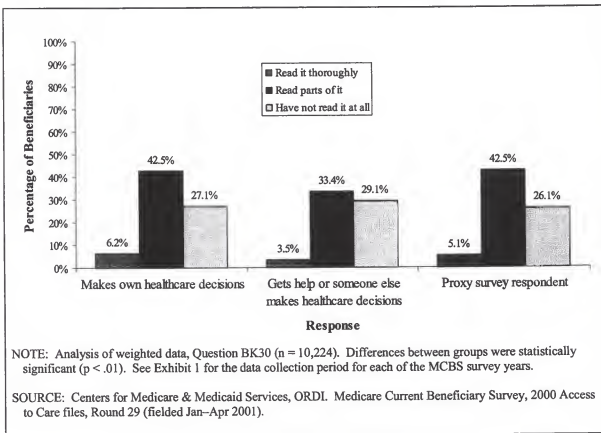
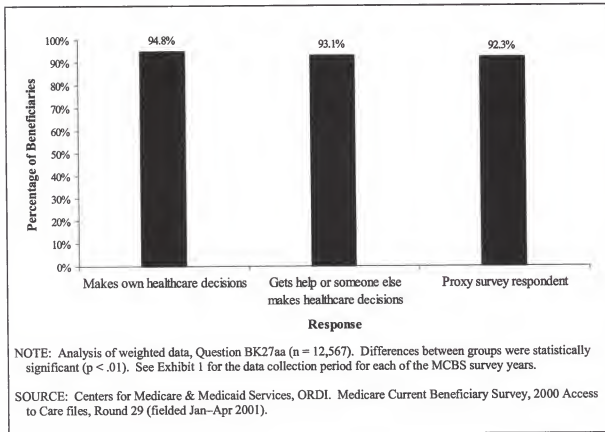


Exhibit E.11

Percentage of beneficiaries satisfied or very satisfied with the availability of information by type of survey respondent/healthcare decision making



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